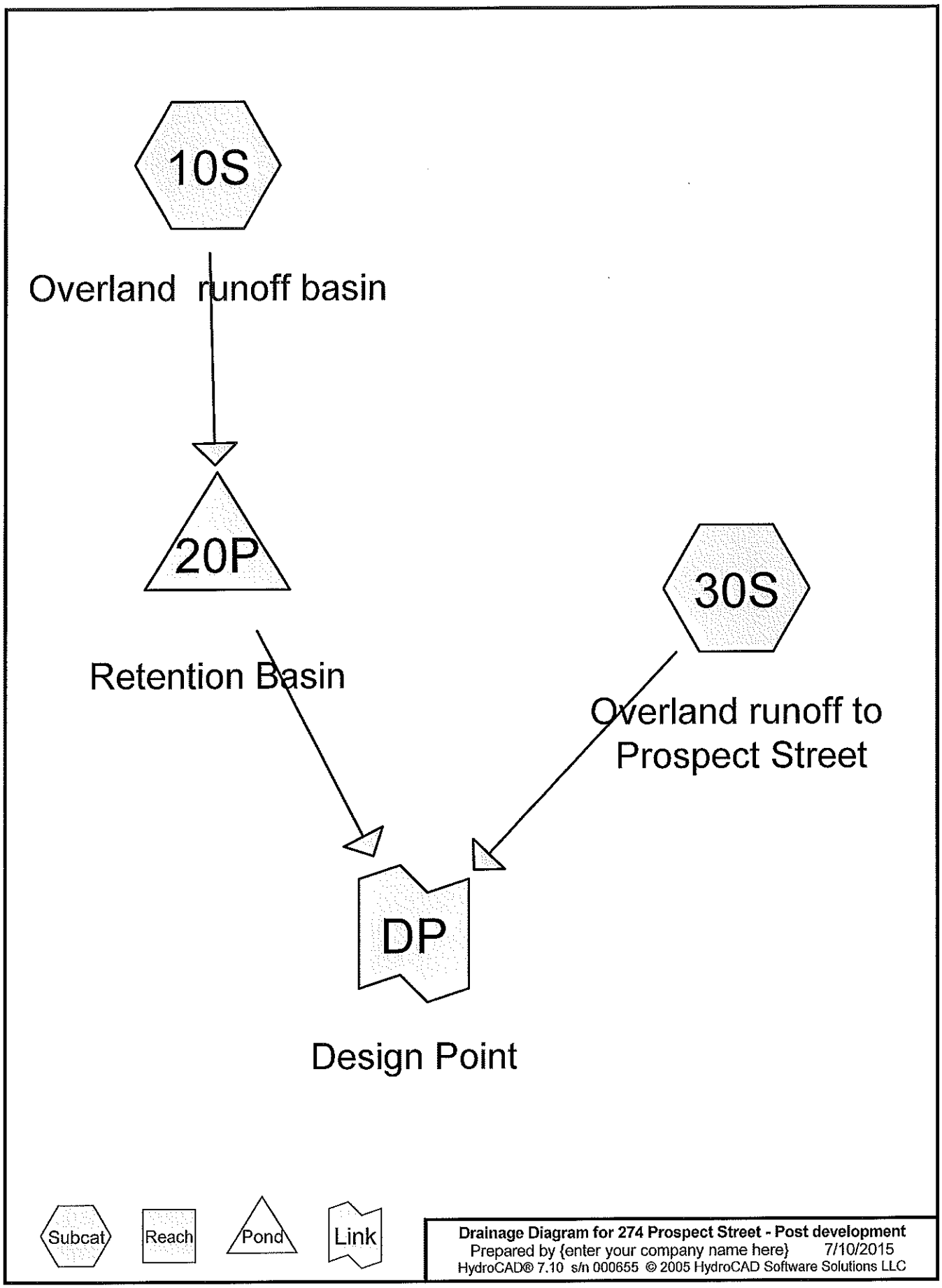
10S
Overland runoff basin
20P
Retention Basin
30S
Overland runoff to
Prospect Street
DP
Design Point
Subcat
Reach
Pond
Link
Drainage Diagram for 274 Prospect Street - Post development
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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 10S: Overland runoff basin Runoff Area=3.290 ac Runoff Depth>1.28"
Flow Length=388' Tc=5.0 min CN=82 Runoff=5.30 cfs 0.350 af

Subcatchment 30S: Overland runoff to Prospect Street Runoff Area=0.570 ac Runoff Depth>0.73"
Flow Length=20' Tc=5.0 min CN=72 Runoff=0.49 cfs 0.035 af

Pond 20P: Retention Basin Peak Elev=521.10' Storage=4,774 cf Inflow=5.30 cfs 0.350 af
Outflow=2.75 cfs 0.295 af

Link DP: Design Point Inflow=3.05 cfs 0.330 af
Primary=3.05 cfs 0.330 af

Total Runoff Area = 3.860 ac Runoff Volume = 0.385 af Average Runoff Depth = 1.20"

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Subcatchment 10S: Overland runoff basin

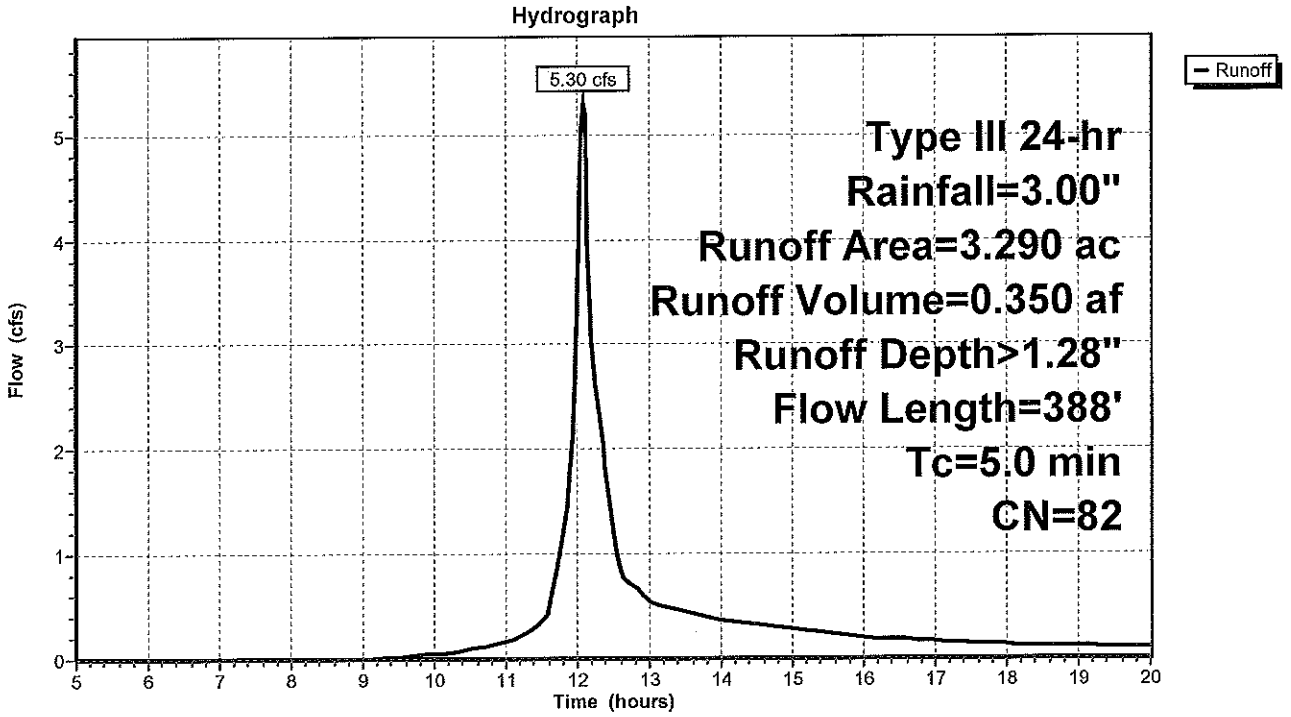
Runoff = 5.30 cfs @ 12.08 hrs, Volume= 0.350 af, Depth> 1.28"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=3.00"

Area (ac)	CN	Description
1.040	98	Paved parking & roofs
2.250	74	>75% Grass cover, Good, HSG C
3.290	82	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	388		1.3		**Direct Entry, Path 1**

Subcatchment 10S: Overland runoff basin



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Hydrograph for Subcatchment 10S: Overland runoff basin

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.17	0.00	0.00
5.25	0.18	0.00	0.00
5.50	0.19	0.00	0.00
5.75	0.20	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.23	0.00	0.00
6.50	0.24	0.00	0.00
6.75	0.26	0.00	0.00
7.00	0.27	0.00	0.00
7.25	0.29	0.00	0.00
7.50	0.30	0.00	0.00
7.75	0.32	0.00	0.00
8.00	0.34	0.00	0.00
8.25	0.36	0.00	0.00
8.50	0.39	0.00	0.00
8.75	0.41	0.00	0.00
9.00	0.44	0.00	0.00
9.25	0.47	0.00	0.01
9.50	0.50	0.00	0.02
9.75	0.53	0.00	0.03
10.00	0.57	0.01	0.05
10.25	0.61	0.01	0.07
10.50	0.65	0.02	0.09
10.75	0.70	0.03	0.12
11.00	0.75	0.04	0.16
11.25	0.81	0.05	0.23
11.50	0.89	0.08	0.33
11.75	1.07	0.14	0.99
12.00	1.50	0.35	**3.36**
12.25	1.93	0.61	**2.60**
12.50	2.11	0.72	1.25
12.75	2.19	0.77	0.70
13.00	2.25	0.82	0.56
13.25	2.30	0.86	0.48
13.50	2.35	0.89	0.45
13.75	2.39	0.92	0.41
14.00	2.43	0.95	0.37
14.25	2.47	0.98	0.34
14.50	2.50	1.00	0.32
14.75	2.53	1.02	0.30
15.00	2.56	1.04	0.28
15.25	2.59	1.06	0.26
15.50	2.61	1.08	0.24
15.75	2.64	1.10	0.22
16.00	2.66	1.12	0.20
16.25	2.68	1.13	0.19
16.50	2.70	1.14	0.18
16.75	2.71	1.16	0.17
17.00	2.73	1.17	0.16
17.25	2.74	1.18	0.15
17.50	2.76	1.19	0.14
17.75	2.77	1.20	0.13
18.00	2.78	1.21	0.12
18.25	2.80	1.22	0.12
18.50	2.81	1.23	0.12
18.75	2.82	1.24	0.11
19.00	2.83	1.25	0.11
19.25	2.84	1.25	0.11
19.50	2.85	1.26	0.11
19.75	2.86	1.27	0.10
20.00	**2.87**	**1.28**	0.10

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Subcatchment 30S: Overland runoff to Prospect Street

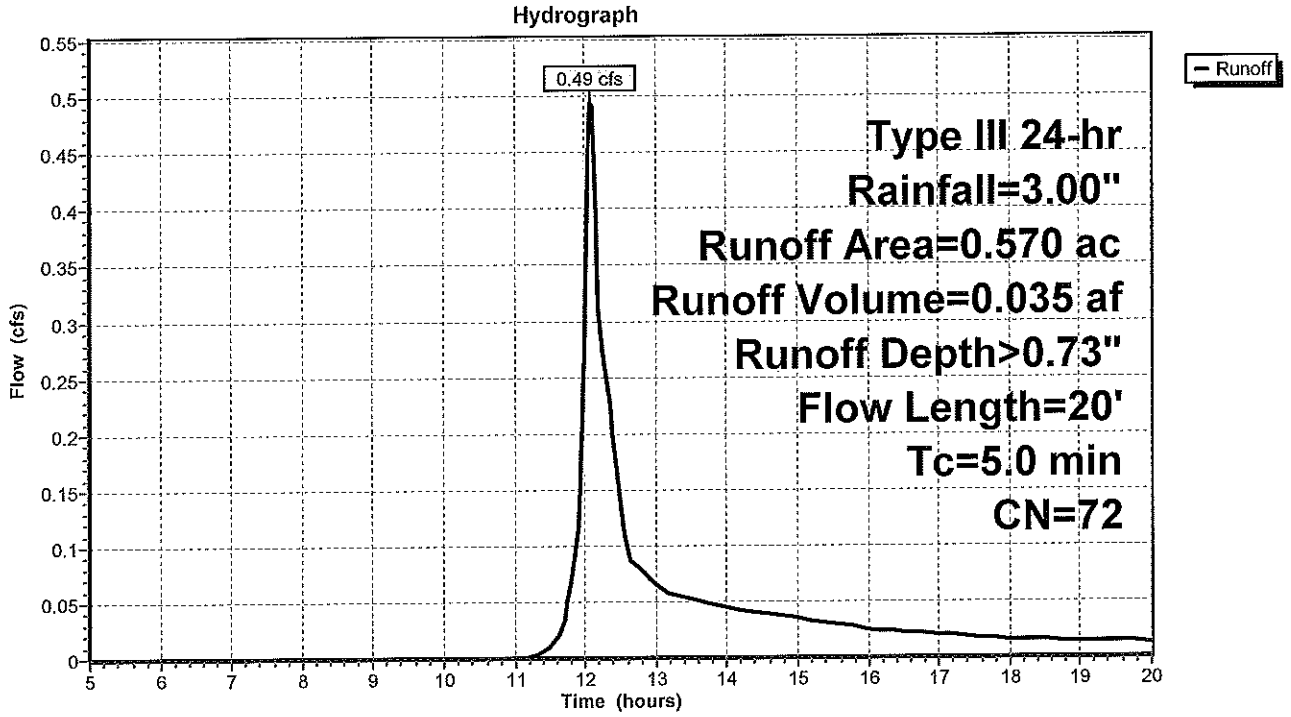
Runoff = 0.49 cfs @ 12.09 hrs, Volume= 0.035 af, Depth> 0.73"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=3.00"

Area (ac)	CN	Description
0.310	71	Meadow, non-grazed, HSG C
0.260	74	>75% Grass cover, Good, HSG C
0.570	72	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	20		0.1		**Direct Entry, Path 1**

Subcatchment 30S: Overland runoff to Prospect Street



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Hydrograph for Subcatchment 30S: Overland runoff to Prospect Street

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.17	0.00	0.00
5.25	0.18	0.00	0.00
5.50	0.19	0.00	0.00
5.75	0.20	0.00	0.00
6.00	0.22	0.00	0.00
6.25	0.23	0.00	0.00
6.50	0.24	0.00	0.00
6.75	0.26	0.00	0.00
7.00	0.27	0.00	0.00
7.25	0.29	0.00	0.00
7.50	0.30	0.00	0.00
7.75	0.32	0.00	0.00
8.00	0.34	0.00	0.00
8.25	0.36	0.00	0.00
8.50	0.39	0.00	0.00
8.75	0.41	0.00	0.00
9.00	0.44	0.00	0.00
9.25	0.47	0.00	0.00
9.50	0.50	0.00	0.00
9.75	0.53	0.00	0.00
10.00	0.57	0.00	0.00
10.25	0.61	0.00	0.00
10.50	0.65	0.00	0.00
10.75	0.70	0.00	0.00
11.00	0.75	0.00	0.00
11.25	0.81	0.00	0.00
11.50	0.89	0.00	0.01
11.75	1.07	0.02	0.05
12.00	1.50	0.11	**0.27**
12.25	1.93	0.27	**0.27**
12.50	2.11	0.34	0.14
12.75	2.19	0.37	0.08
13.00	2.25	0.40	0.06
13.25	2.30	0.43	0.06
13.50	2.35	0.45	0.05
13.75	2.39	0.47	0.05
14.00	2.43	0.49	0.04
14.25	2.47	0.51	0.04
14.50	2.50	0.53	0.04
14.75	2.53	0.55	0.04
15.00	2.56	0.56	0.03
15.25	2.59	0.58	0.03
15.50	2.61	0.59	0.03
15.75	2.64	0.60	0.03
16.00	2.66	0.61	0.03
16.25	2.68	0.62	0.02
16.50	2.70	0.63	0.02
16.75	2.71	0.64	0.02
17.00	2.73	0.65	0.02
17.25	2.74	0.66	0.02
17.50	2.76	0.67	0.02
17.75	2.77	0.68	0.02
18.00	2.78	0.68	0.02
18.25	2.80	0.69	0.02
18.50	2.81	0.70	0.02
18.75	2.82	0.70	0.01
19.00	2.83	0.71	0.01
19.25	2.84	0.71	0.01
19.50	2.85	0.72	0.01
19.75	2.86	0.73	0.01
20.00	**2.87**	**0.73**	0.01

Pond 20P: Retention Basin

Inflow Area =	3.290 ac,	Inflow Depth > 1.28"		
Inflow =	5.30 cfs @	12.08 hrs, Volume=	0.350 af	
Outflow =	2.75 cfs @	12.24 hrs, Volume=	0.295 af,	Atten= 48%, Lag= 9.3 min
Primary =	2.75 cfs @	12.24 hrs, Volume=	0.295 af	

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 521.10' @ 12.24 hrs Surf.Area= 5,368 sf Storage= 4,774 cf
Plug-Flow detention time= 82.2 min calculated for 0.294 af (84% of inflow)
Center-of-Mass det. time= 37.5 min (837.8 - 800.3)

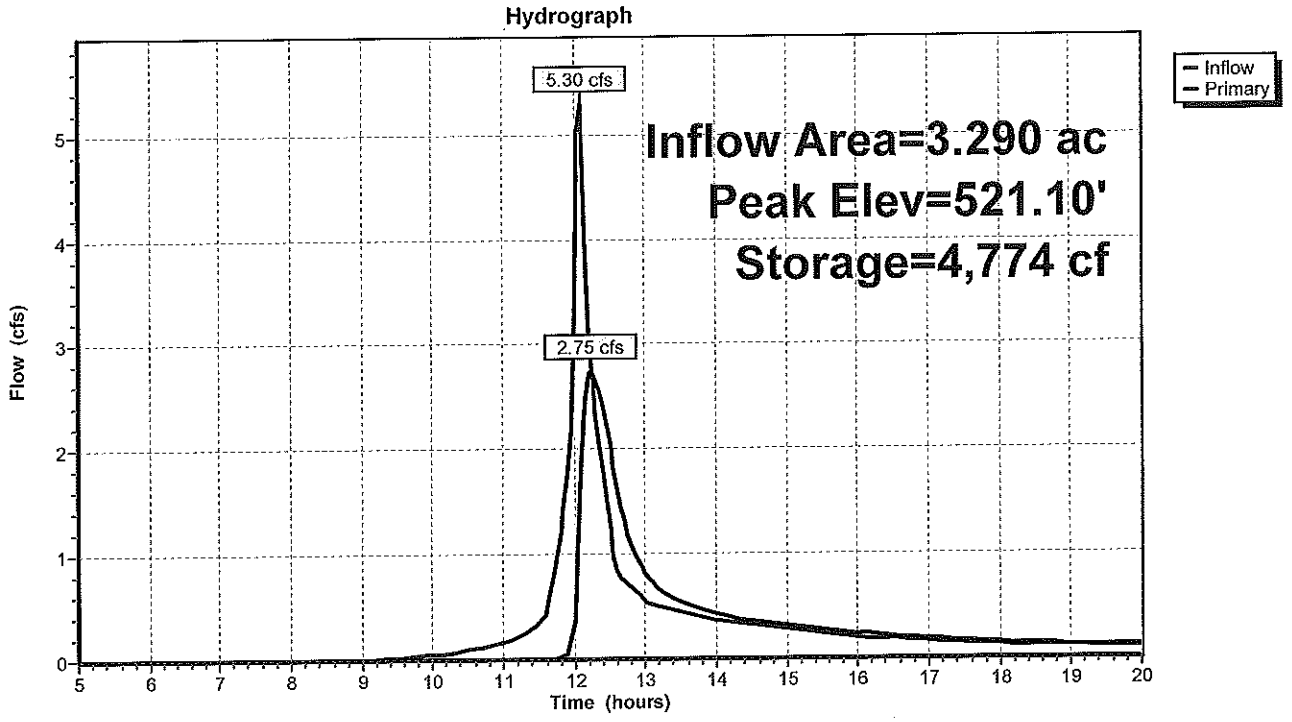
Volume	Invert	Avail.Storage	Storage Description
#1	520.00'	21,404 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
520.00	3,310	0	0
522.00	7,051	10,361	10,361
523.10	13,027	11,043	21,404

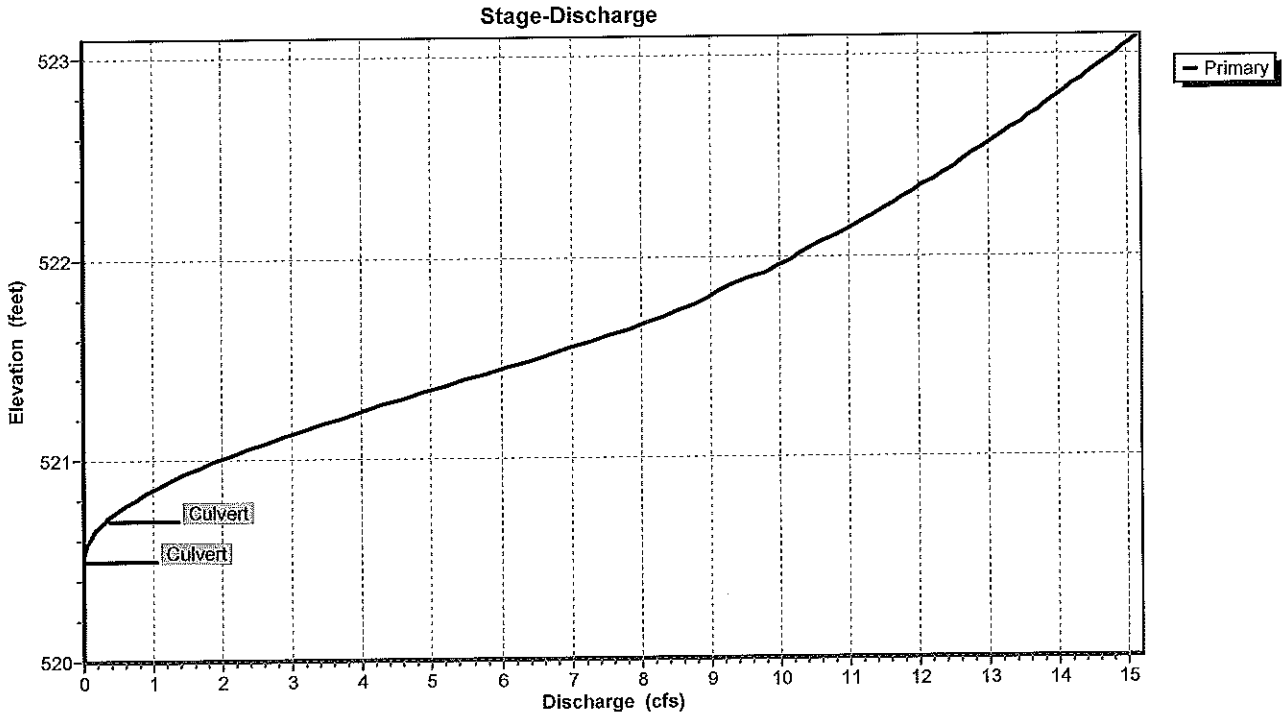
Device	Routing	Invert	Outlet Devices
#1	Primary	520.50'	**12.0" x 20.0' long Culvert X 2.00** Ke= 0.600 Outlet Invert= 520.30' S= 0.0100 '/' Cc= 0.900 n= 0.012
#2	Primary	520.70'	**12.0" x 18.0' long Culvert** Ke= 0.600 Outlet Invert= 520.52' S= 0.0100 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=2.74 cfs @ 12.24 hrs HW=521.10' (Free Discharge)
└─**1=Culvert** (Barrel Controls 2.20 cfs @ 3.2 fps)
└─**2=Culvert** (Barrel Controls 0.54 cfs @ 2.7 fps)

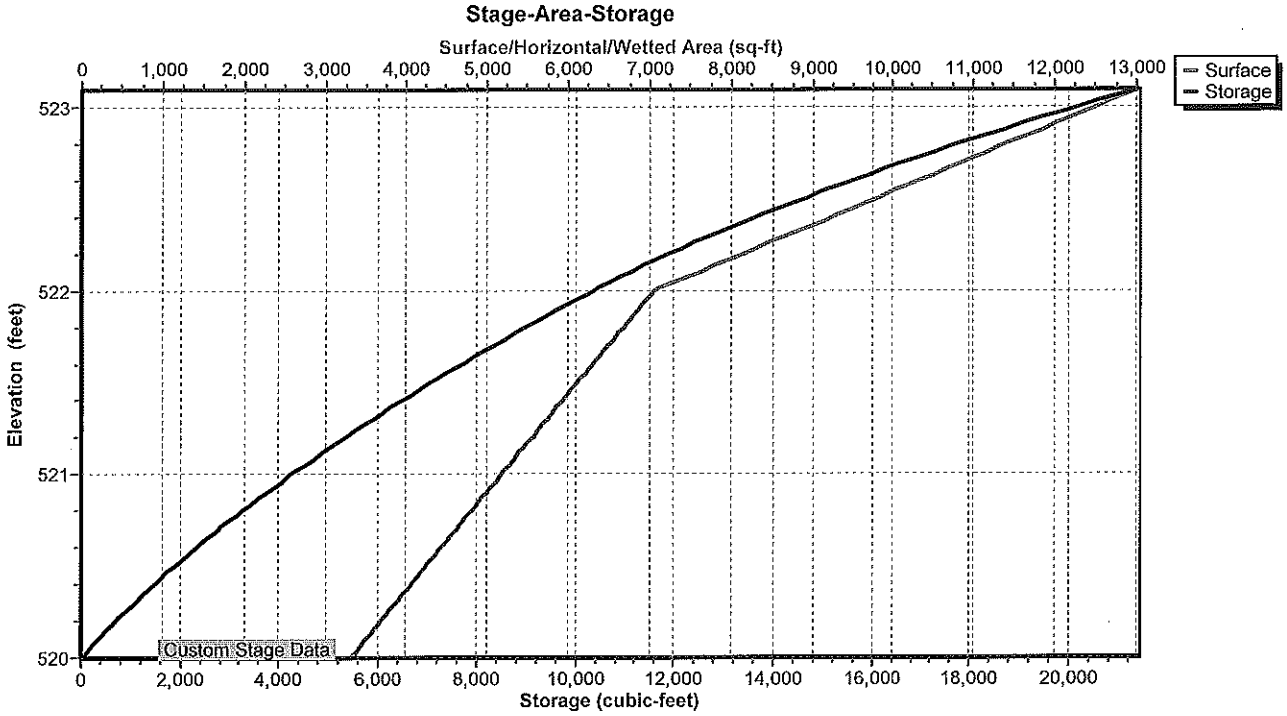
Pond 20P: Retention Basin



Pond 20P: Retention Basin



Pond 20P: Retention Basin



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Hydrograph for Pond 20P: Retention Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	520.00	0.00
5.50	0.00	0	520.00	0.00
6.00	0.00	0	520.00	0.00
6.50	0.00	0	520.00	0.00
7.00	0.00	0	520.00	0.00
7.50	0.00	0	520.00	0.00
8.00	0.00	0	520.00	0.00
8.50	0.00	0	520.00	0.00
9.00	0.00	0	520.00	0.00
9.50	0.02	13	520.00	0.00
10.00	0.05	71	520.02	0.00
10.50	0.09	193	520.06	0.00
11.00	0.16	416	520.12	0.00
11.50	0.33	836	520.24	0.00
12.00	**3.36**	**2,867**	**520.72**	**0.38**
12.50	**1.25**	**4,301**	**521.01**	**2.03**
13.00	0.56	3,360	520.82	0.82
13.50	0.45	3,070	520.76	0.54
14.00	0.37	2,939	520.74	0.43
14.50	0.32	2,848	520.72	0.36
15.00	0.28	2,783	520.70	0.32
15.50	0.24	2,720	520.69	0.28
16.00	0.20	2,654	520.67	0.24
16.50	0.18	2,595	520.66	0.21
17.00	0.16	2,552	520.65	0.18
17.50	0.14	2,514	520.64	0.16
18.00	0.12	2,476	520.63	0.15
18.50	0.12	2,444	520.63	0.13
19.00	0.11	2,423	520.62	0.12
19.50	0.11	2,408	520.62	0.11
20.00	0.10	2,394	520.62	0.11

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Stage-Discharge for Pond 20P: Retention Basin

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
520.00	0.00	521.02	2.10	522.04	10.38	523.06	15.01
520.02	0.00	521.04	2.26	522.06	10.51	523.08	15.09
520.04	0.00	521.06	2.41	522.08	10.64	523.10	**15.16**
520.06	0.00	521.08	2.58	522.10	10.76		
520.08	0.00	521.10	2.74	522.12	10.89		
520.10	0.00	521.12	2.91	522.14	11.01		
520.12	0.00	521.14	3.09	522.16	11.11		
520.14	0.00	521.16	3.26	522.18	11.21		
520.16	0.00	521.18	3.44	522.20	11.31		
520.18	0.00	521.20	3.62	522.22	11.41		
520.20	0.00	521.22	3.81	522.24	11.51		
520.22	0.00	521.24	3.99	522.26	11.61		
520.24	0.00	521.26	4.18	522.28	11.71		
520.26	0.00	521.28	4.37	522.30	11.80		
520.28	0.00	521.30	4.56	522.32	11.90		
520.30	0.00	521.32	4.75	522.34	11.99		
520.32	0.00	521.34	4.94	522.36	12.09		
520.34	0.00	521.36	5.14	522.38	12.18		
520.36	0.00	521.38	5.33	522.40	12.27		
520.38	0.00	521.40	5.53	522.42	12.37		
520.40	0.00	521.42	5.72	522.44	12.46		
520.42	0.00	521.44	5.92	522.46	12.55		
520.44	0.00	521.46	6.12	522.48	12.64		
520.46	0.00	521.48	6.31	522.50	12.73		
520.48	0.00	521.50	6.50	522.52	12.82		
520.50	0.00	521.52	6.70	522.54	12.90		
520.52	0.00	521.54	6.89	522.56	12.99		
520.54	0.01	521.56	7.08	522.58	13.08		
520.56	0.03	521.58	7.26	522.60	13.16		
520.58	0.05	521.60	7.45	522.62	13.25		
520.60	0.08	521.62	7.63	522.64	13.33		
520.62	0.12	521.64	7.80	522.66	13.42		
520.64	0.16	521.66	7.98	522.68	13.50		
520.66	0.20	521.68	8.14	522.70	13.59		
520.68	0.26	521.70	8.30	522.72	13.67		
520.70	0.31	521.72	8.45	522.74	13.75		
520.72	0.38	521.74	8.59	522.76	13.83		
520.74	0.45	521.76	8.73	522.78	13.92		
520.76	0.52	521.78	8.87	522.80	14.00		
520.78	0.61	521.80	8.98	522.82	14.08		
520.80	0.70	521.82	9.07	522.84	14.16		
520.82	0.80	521.84	9.13	522.86	14.24		
520.84	0.91	521.86	9.30	522.88	14.32		
520.86	1.02	521.88	9.46	522.90	14.40		
520.88	1.14	521.90	9.62	522.92	14.47		
520.90	1.26	521.92	9.78	522.94	14.55		
520.92	1.39	521.94	9.90	522.96	14.63		
520.94	1.52	521.96	10.02	522.98	14.71		
520.96	1.66	521.98	10.12	523.00	14.78		
520.98	1.80	522.00	10.22	523.02	14.86		
521.00	1.95	522.02	10.31	523.04	14.94		

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Stage-Area-Storage for Pond 20P: Retention Basin

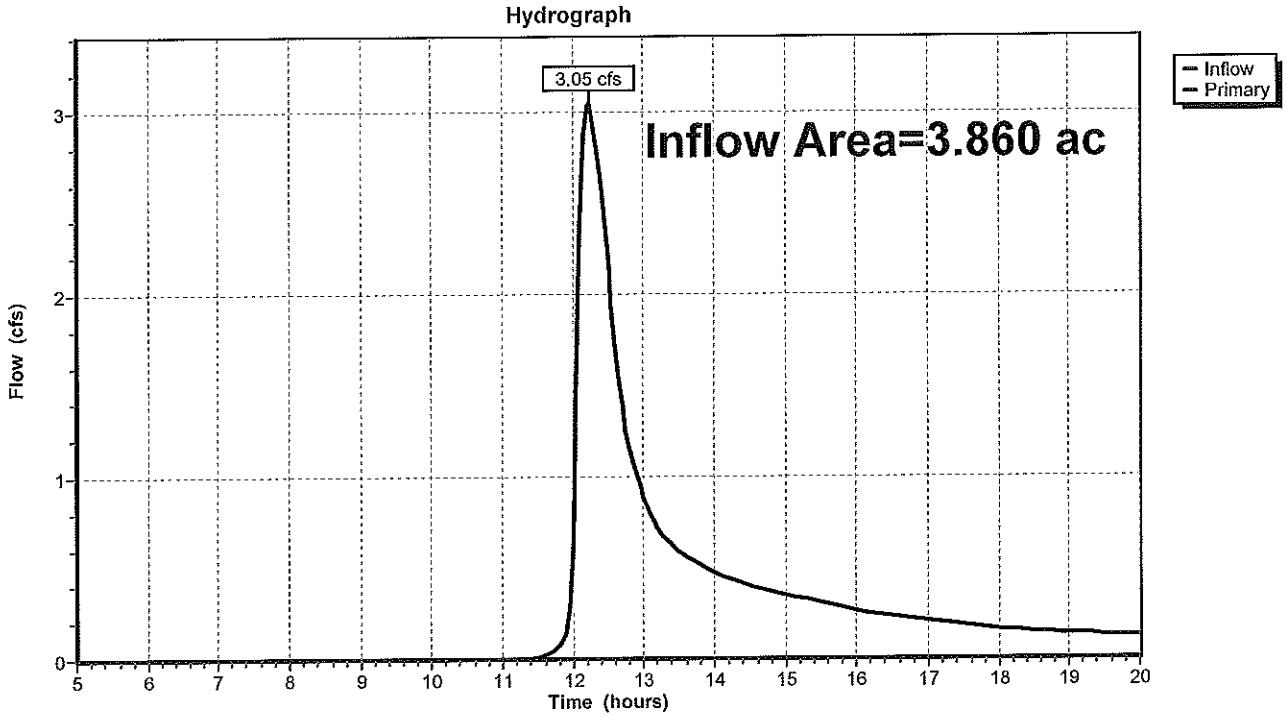
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.00	3,310	0
520.05	3,404	168
520.10	3,497	340
520.15	3,591	518
520.20	3,684	699
520.25	3,778	886
520.30	3,871	1,077
520.35	3,965	1,273
520.40	4,058	1,474
520.45	4,152	1,679
520.50	4,245	1,889
520.55	4,339	2,103
520.60	4,432	2,323
520.65	4,526	2,547
520.70	4,619	2,775
520.75	4,713	3,009
520.80	4,806	3,247
520.85	4,900	3,489
520.90	4,993	3,737
520.95	5,087	3,989
521.00	5,181	4,245
521.05	5,274	4,507
521.10	5,368	4,773
521.15	5,461	5,043
521.20	5,555	5,319
521.25	5,648	5,599
521.30	5,742	5,884
521.35	5,835	6,173
521.40	5,929	6,467
521.45	6,022	6,766
521.50	6,116	7,069
521.55	6,209	7,377
521.60	6,303	7,690
521.65	6,396	8,008
521.70	6,490	8,330
521.75	6,583	8,657
521.80	6,677	8,988
521.85	6,770	9,324
521.90	6,864	9,665
521.95	6,957	10,011
522.00	7,051	10,361
522.05	7,323	10,720
522.10	7,594	11,093
522.15	7,866	11,480
522.20	8,138	11,880
522.25	8,409	12,294
522.30	8,681	12,721
522.35	8,952	13,162
522.40	9,224	13,616
522.45	9,496	14,084
522.50	9,767	14,566
522.55	10,039	15,061
522.60	10,311	15,569
522.65	10,582	16,092
522.70	10,854	16,628
522.75	11,126	17,177
522.80	11,397	17,740
522.85	11,669	18,317
522.90	11,940	18,907
522.95	12,212	19,511
523.00	12,484	20,128
523.05	12,755	20,759
523.10	**13,027**	**21,404**

Link DP: Design Point

Inflow Area =	3.860 ac,	Inflow Depth >	1.03"	
Inflow =	3.05 cfs @	12.22 hrs,	Volume=	0.330 af
Primary =	3.05 cfs @	12.22 hrs,	Volume=	0.330 af, Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link DP: Design Point



Hydrograph for Link DP: Design Point

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	**0.00**	0.00
5.25	0.00	0.00	0.00
5.50	0.00	0.00	0.00
5.75	0.00	0.00	0.00
6.00	0.00	0.00	0.00
6.25	0.00	0.00	0.00
6.50	0.00	0.00	0.00
6.75	0.00	0.00	0.00
7.00	0.00	0.00	0.00
7.25	0.00	0.00	0.00
7.50	0.00	0.00	0.00
7.75	0.00	0.00	0.00
8.00	0.00	0.00	0.00
8.25	0.00	0.00	0.00
8.50	0.00	0.00	0.00
8.75	0.00	0.00	0.00
9.00	0.00	0.00	0.00
9.25	0.00	0.00	0.00
9.50	0.00	0.00	0.00
9.75	0.00	0.00	0.00
10.00	0.00	0.00	0.00
10.25	0.00	0.00	0.00
10.50	0.00	0.00	0.00
10.75	0.00	0.00	0.00
11.00	0.00	0.00	0.00
11.25	0.00	0.00	0.00
11.50	0.01	0.00	0.01
11.75	0.05	0.00	0.05
12.00	**0.65**	0.00	**0.65**
12.25	**3.02**	0.00	**3.02**
12.50	2.17	0.00	2.17
12.75	1.26	0.00	1.26
13.00	0.89	0.00	0.89
13.25	0.69	0.00	0.69
13.50	0.59	0.00	0.59
13.75	0.52	0.00	0.52
14.00	0.47	0.00	0.47
14.25	0.43	0.00	0.43
14.50	0.40	0.00	0.40
14.75	0.38	0.00	0.38
15.00	0.35	0.00	0.35
15.25	0.33	0.00	0.33
15.50	0.31	0.00	0.31
15.75	0.29	0.00	0.29
16.00	0.26	0.00	0.26
16.25	0.25	0.00	0.25
16.50	0.23	0.00	0.23
16.75	0.22	0.00	0.22
17.00	0.20	0.00	0.20
17.25	0.19	0.00	0.19
17.50	0.18	0.00	0.18
17.75	0.17	0.00	0.17
18.00	0.16	0.00	0.16
18.25	0.15	0.00	0.15
18.50	0.15	0.00	0.15
18.75	0.14	0.00	0.14
19.00	0.14	0.00	0.14
19.25	0.13	0.00	0.13
19.50	0.13	0.00	0.13
19.75	0.13	0.00	0.13
20.00	0.12	0.00	0.12

PROPOSED CONDITIONS

10 YEAR STORM

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 10S: Overland runoff basin Runoff Area=3.290 ac Runoff Depth>2.46"
Flow Length=388' Tc=5.0 min CN=82 Runoff=10.16 cfs 0.676 af

Subcatchment 30S: Overland runoff to Prospect Street Runoff Area=0.570 ac Runoff Depth>1.68"
Flow Length=20' Tc=5.0 min CN=72 Runoff=1.20 cfs 0.080 af

Pond 20P: Retention Basin Peak Elev=521.52' Storage=7,175 cf Inflow=10.16 cfs 0.676 af
Outflow=6.67 cfs 0.617 af

Link DP: Design Point Inflow=7.51 cfs 0.697 af
Primary=7.51 cfs 0.697 af

Total Runoff Area = 3.860 ac Runoff Volume = 0.755 af Average Runoff Depth = 2.35"

Subcatchment 10S: Overland runoff basin

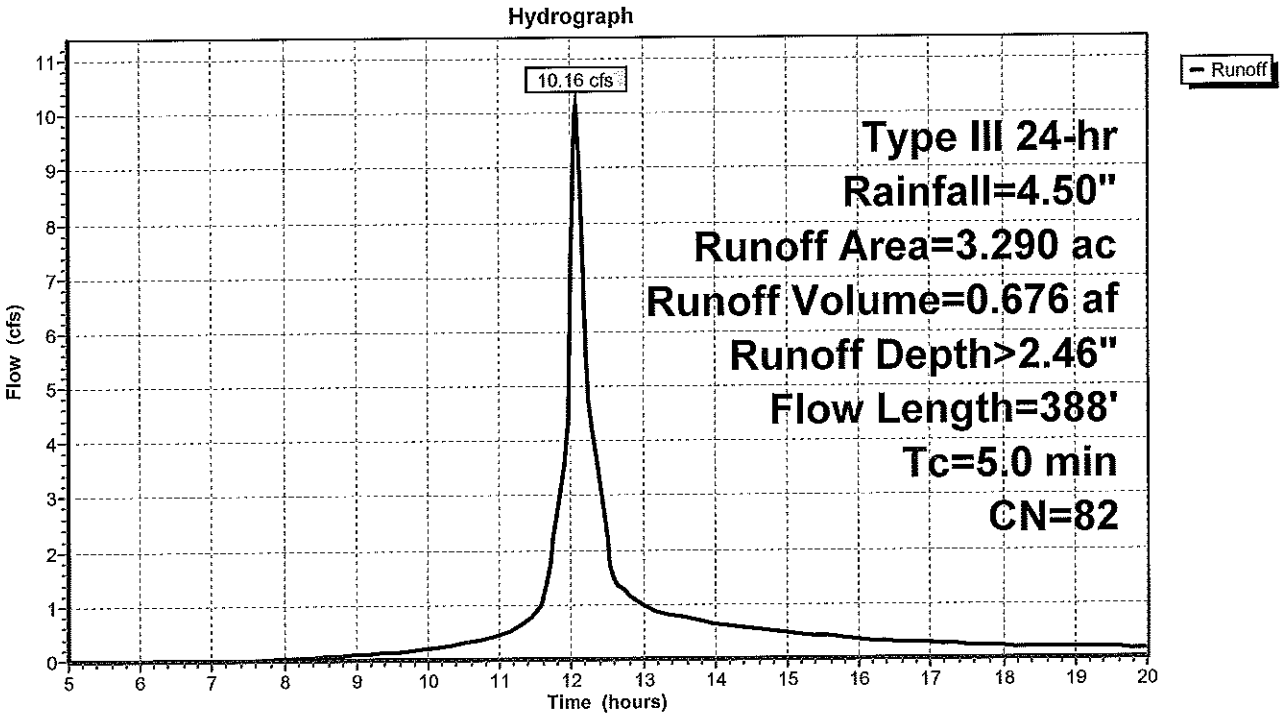
Runoff = 10.16 cfs @ 12.08 hrs, Volume= 0.676 af, Depth> 2.46"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=4.50"

Area (ac)	CN	Description
1.040	98	Paved parking & roofs
2.250	74	>75% Grass cover, Good, HSG C
3.290	82	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	388		1.3		**Direct Entry, Path 1**

Subcatchment 10S: Overland runoff basin



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Hydrograph for Subcatchment 10S: Overland runoff basin

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.26	0.00	0.00
5.25	0.27	0.00	0.00
5.50	0.29	0.00	0.00
5.75	0.31	0.00	0.00
6.00	0.32	0.00	0.00
6.25	0.34	0.00	0.00
6.50	0.36	0.00	0.00
6.75	0.38	0.00	0.00
7.00	0.41	0.00	0.00
7.25	0.43	0.00	0.00
7.50	0.46	0.00	0.00
7.75	0.48	0.00	0.01
8.00	0.51	0.00	0.02
8.25	0.54	0.00	0.03
8.50	0.58	0.01	0.05
8.75	0.62	0.01	0.07
9.00	0.66	0.02	0.09
9.25	0.70	0.03	0.11
9.50	0.75	0.04	0.14
9.75	0.80	0.05	0.17
10.00	0.85	0.06	0.20
10.25	0.91	0.08	0.25
10.50	0.97	0.10	0.30
10.75	1.05	0.13	0.37
11.00	1.13	0.16	0.43
11.25	1.22	0.20	0.59
11.50	1.34	0.26	0.81
11.75	1.60	0.40	2.21
12.00	2.25	0.82	**6.72**
12.25	2.90	1.30	**4.75**
12.50	3.16	1.51	2.22
12.75	3.28	1.60	1.24
13.00	3.37	1.68	0.97
13.25	3.45	1.74	0.84
13.50	3.53	1.80	0.77
13.75	3.59	1.86	0.70
14.00	3.65	1.91	0.63
14.25	3.70	1.95	0.59
14.50	3.75	1.99	0.55
14.75	3.80	2.03	0.52
15.00	3.84	2.07	0.48
15.25	3.88	2.10	0.45
15.50	3.92	2.14	0.41
15.75	3.96	2.17	0.38
16.00	3.99	2.19	0.34
16.25	4.02	2.22	0.32
16.50	4.04	2.24	0.31
16.75	4.07	2.26	0.29
17.00	4.09	2.28	0.27
17.25	4.12	2.30	0.26
17.50	4.14	2.32	0.24
17.75	4.16	2.34	0.23
18.00	4.18	2.35	0.21
18.25	4.19	2.37	0.20
18.50	4.21	2.38	0.20
18.75	4.23	2.40	0.19
19.00	4.24	2.41	0.19
19.25	4.26	2.43	0.18
19.50	4.28	2.44	0.18
19.75	4.29	2.45	0.17
20.00	**4.31**	**2.47**	0.17

Subcatchment 30S: Overland runoff to Prospect Street

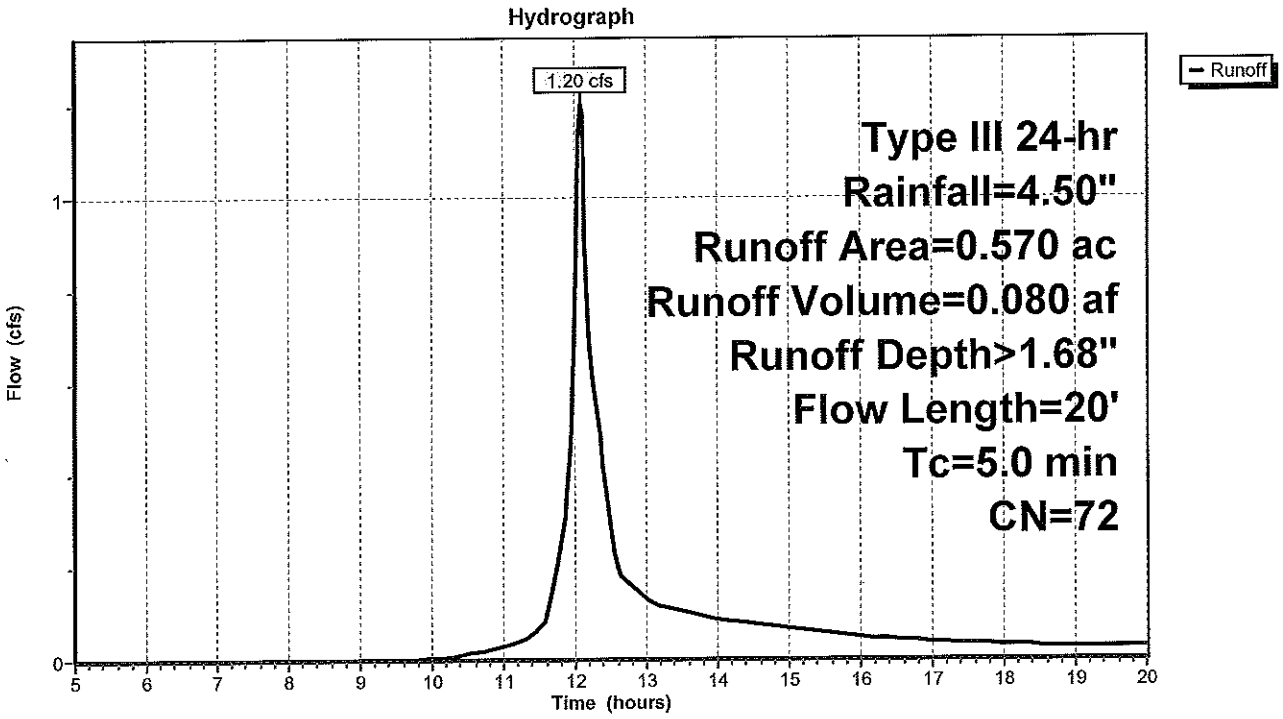
Runoff = 1.20 cfs @ 12.08 hrs, Volume= 0.080 af, Depth> 1.68"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=4.50"

Area (ac)	CN	Description
0.310	71	Meadow, non-grazed, HSG C
0.260	74	>75% Grass cover, Good, HSG C
0.570	72	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	20		0.1		**Direct Entry, Path 1**

Subcatchment 30S: Overland runoff to Prospect Street



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Hydrograph for Subcatchment 30S: Overland runoff to Prospect Street

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.26	0.00	0.00
5.25	0.27	0.00	0.00
5.50	0.29	0.00	0.00
5.75	0.31	0.00	0.00
6.00	0.32	0.00	0.00
6.25	0.34	0.00	0.00
6.50	0.36	0.00	0.00
6.75	0.38	0.00	0.00
7.00	0.41	0.00	0.00
7.25	0.43	0.00	0.00
7.50	0.46	0.00	0.00
7.75	0.48	0.00	0.00
8.00	0.51	0.00	0.00
8.25	0.54	0.00	0.00
8.50	0.58	0.00	0.00
8.75	0.62	0.00	0.00
9.00	0.66	0.00	0.00
9.25	0.70	0.00	0.00
9.50	0.75	0.00	0.00
9.75	0.80	0.00	0.00
10.00	0.85	0.00	0.00
10.25	0.91	0.00	0.01
10.50	0.97	0.01	0.01
10.75	1.05	0.02	0.02
11.00	1.13	0.03	0.03
11.25	1.22	0.05	0.04
11.50	1.34	0.07	0.06
11.75	1.60	0.14	0.20
12.00	2.25	0.40	**0.74**
12.25	2.90	0.75	**0.60**
12.50	3.16	0.90	0.29
12.75	3.28	0.98	0.17
13.00	3.37	1.04	0.13
13.25	3.45	1.09	0.12
13.50	3.53	1.14	0.11
13.75	3.59	1.18	0.10
14.00	3.65	1.22	0.09
14.25	3.70	1.26	0.08
14.50	3.75	1.29	0.08
14.75	3.80	1.32	0.07
15.00	3.84	1.35	0.07
15.25	3.88	1.38	0.06
15.50	3.92	1.41	0.06
15.75	3.96	1.43	0.05
16.00	3.99	1.45	0.05
16.25	4.02	1.47	0.05
16.50	4.04	1.49	0.04
16.75	4.07	1.51	0.04
17.00	4.09	1.53	0.04
17.25	4.12	1.54	0.04
17.50	4.14	1.56	0.03
17.75	4.16	1.57	0.03
18.00	4.18	1.58	0.03
18.25	4.19	1.60	0.03
18.50	4.21	1.61	0.03
18.75	4.23	1.62	0.03
19.00	4.24	1.63	0.03
19.25	4.26	1.65	0.03
19.50	4.28	1.66	0.03
19.75	4.29	1.67	0.03
20.00	**4.31**	**1.68**	0.02

Pond 20P: Retention Basin

Inflow Area =	3.290 ac,	Inflow Depth > 2.46"		
Inflow =	10.16 cfs @	12.08 hrs, Volume=	0.676 af	
Outflow =	6.67 cfs @	12.17 hrs, Volume=	0.617 af,	Atten= 34%, Lag= 5.8 min
Primary =	6.67 cfs @	12.17 hrs, Volume=	0.617 af	

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 521.52' @ 12.17 hrs Surf.Area= 6,148 sf Storage= 7,175 cf
Plug-Flow detention time= 57.3 min calculated for 0.617 af (91% of inflow)
Center-of-Mass det. time= 28.5 min (813.8 - 785.3)

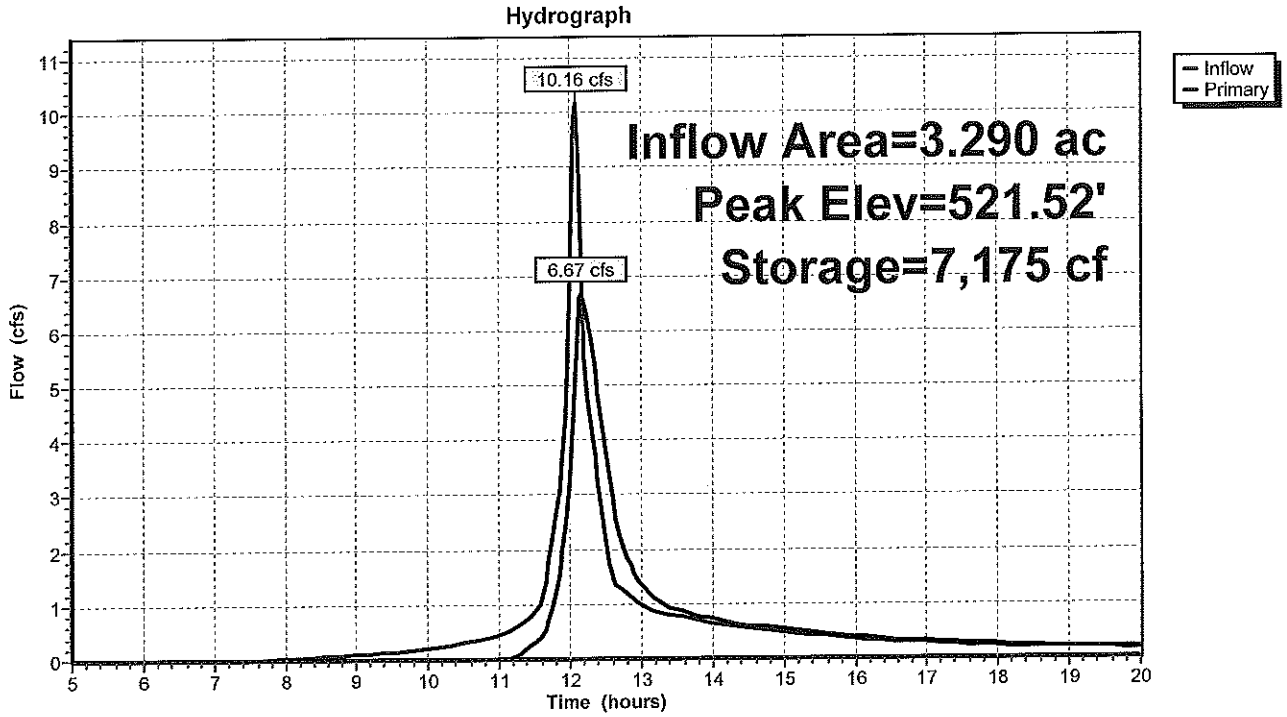
Volume	Invert	Avail.Storage	Storage Description
#1	520.00'	21,404 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
520.00	3,310	0	0
522.00	7,051	10,361	10,361
523.10	13,027	11,043	21,404

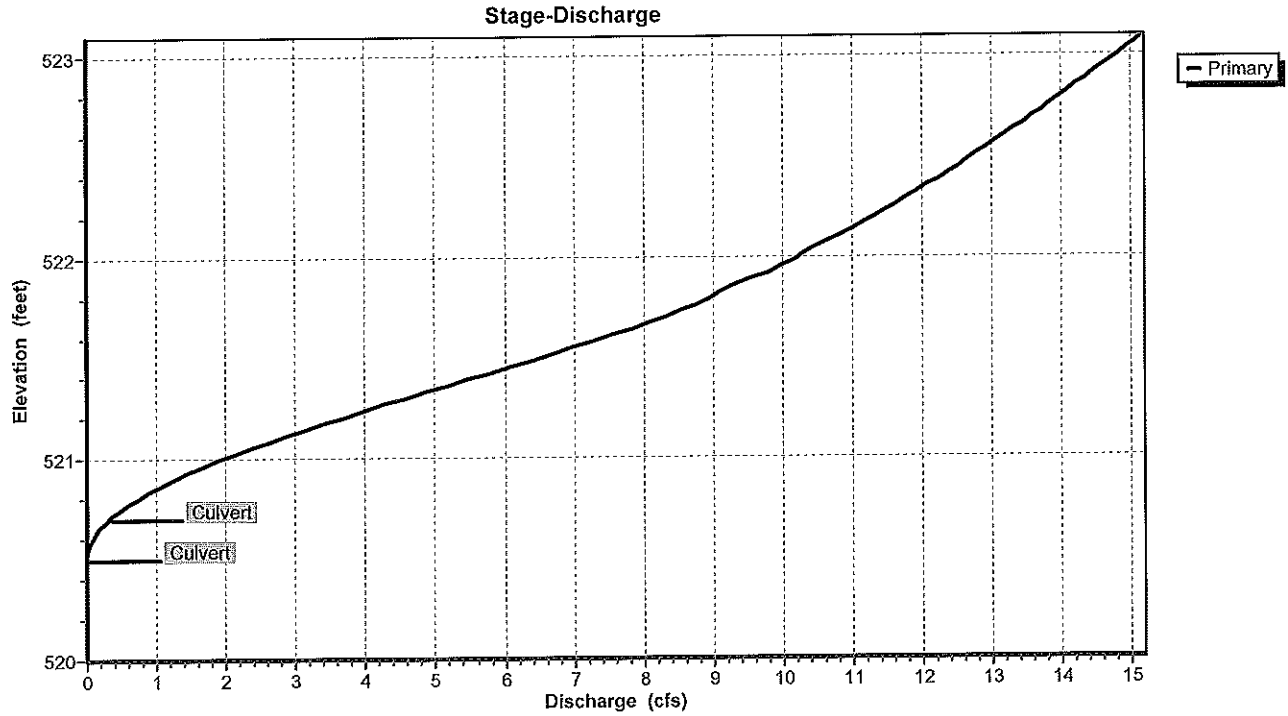
Device	Routing	Invert	Outlet Devices
#1	Primary	520.50'	**12.0" x 20.0' long Culvert X 2.00** Ke= 0.600 Outlet Invert= 520.30' S= 0.0100 '/' Cc= 0.900 n= 0.012
#2	Primary	520.70'	**12.0" x 18.0' long Culvert** Ke= 0.600 Outlet Invert= 520.52' S= 0.0100 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=6.58 cfs @ 12.17 hrs HW=521.51' (Free Discharge)
- **1=Culvert** (Barrel Controls 4.84 cfs @ 3.8 fps)
- **2=Culvert** (Barrel Controls 1.74 cfs @ 3.5 fps)

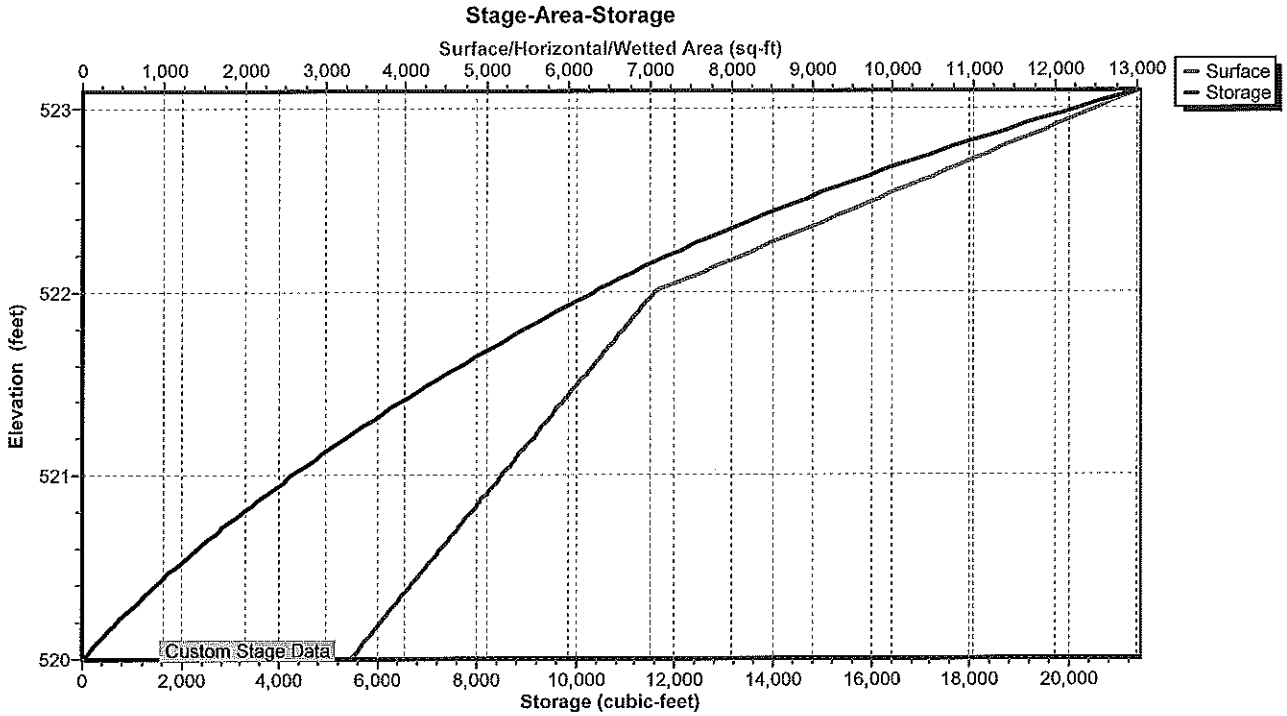
Pond 20P: Retention Basin



Pond 20P: Retention Basin



Pond 20P: Retention Basin



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Hydrograph for Pond 20P: Retention Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	520.00	0.00
5.50	0.00	0	520.00	0.00
6.00	0.00	0	520.00	0.00
6.50	0.00	0	520.00	0.00
7.00	0.00	0	520.00	0.00
7.50	0.00	1	520.00	0.00
8.00	0.02	22	520.01	0.00
8.50	0.05	85	520.03	0.00
9.00	0.09	207	520.06	0.00
9.50	0.14	412	520.12	0.00
10.00	0.20	719	520.21	0.00
10.50	0.30	1,167	520.32	0.00
11.00	0.43	1,828	520.49	0.00
11.50	0.81	2,741	520.69	0.29
12.00	**6.72**	**5,080**	**521.16**	**3.23**
12.50	**2.22**	**5,462**	**521.23**	**3.86**
13.00	0.97	3,815	520.92	1.36
13.50	0.77	3,423	520.84	0.89
14.00	0.63	3,259	520.80	0.71
14.50	0.55	3,143	520.78	0.60
15.00	0.48	3,060	520.76	0.53
15.50	0.41	2,979	520.74	0.46
16.00	0.34	2,891	520.72	0.39
16.50	0.31	2,815	520.71	0.34
17.00	0.27	2,760	520.70	0.30
17.50	0.24	2,709	520.69	0.27
18.00	0.21	2,657	520.67	0.24
18.50	0.20	2,613	520.66	0.22
19.00	0.19	2,586	520.66	0.20
19.50	0.18	2,565	520.65	0.19
20.00	0.17	2,547	520.65	0.18

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Stage-Discharge for Pond 20P: Retention Basin

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
520.00	0.00	521.02	2.10	522.04	10.38	523.06	15.01
520.02	0.00	521.04	2.26	522.06	10.51	523.08	15.09
520.04	0.00	521.06	2.41	522.08	10.64	523.10	**15.16**
520.06	0.00	521.08	2.58	522.10	10.76		
520.08	0.00	521.10	2.74	522.12	10.89		
520.10	0.00	521.12	2.91	522.14	11.01		
520.12	0.00	521.14	3.09	522.16	11.11		
520.14	0.00	521.16	3.26	522.18	11.21		
520.16	0.00	521.18	3.44	522.20	11.31		
520.18	0.00	521.20	3.62	522.22	11.41		
520.20	0.00	521.22	3.81	522.24	11.51		
520.22	0.00	521.24	3.99	522.26	11.61		
520.24	0.00	521.26	4.18	522.28	11.71		
520.26	0.00	521.28	4.37	522.30	11.80		
520.28	0.00	521.30	4.56	522.32	11.90		
520.30	0.00	521.32	4.75	522.34	11.99		
520.32	0.00	521.34	4.94	522.36	12.09		
520.34	0.00	521.36	5.14	522.38	12.18		
520.36	0.00	521.38	5.33	522.40	12.27		
520.38	0.00	521.40	5.53	522.42	12.37		
520.40	0.00	521.42	5.72	522.44	12.46		
520.42	0.00	521.44	5.92	522.46	12.55		
520.44	0.00	521.46	6.12	522.48	12.64		
520.46	0.00	521.48	6.31	522.50	12.73		
520.48	0.00	521.50	6.50	522.52	12.82		
520.50	0.00	521.52	6.70	522.54	12.90		
520.52	0.00	521.54	6.89	522.56	12.99		
520.54	0.01	521.56	7.08	522.58	13.08		
520.56	0.03	521.58	7.26	522.60	13.16		
520.58	0.05	521.60	7.45	522.62	13.25		
520.60	0.08	521.62	7.63	522.64	13.33		
520.62	0.12	521.64	7.80	522.66	13.42		
520.64	0.16	521.66	7.98	522.68	13.50		
520.66	0.20	521.68	8.14	522.70	13.59		
520.68	0.26	521.70	8.30	522.72	13.67		
520.70	0.31	521.72	8.45	522.74	13.75		
520.72	0.38	521.74	8.59	522.76	13.83		
520.74	0.45	521.76	8.73	522.78	13.92		
520.76	0.52	521.78	8.87	522.80	14.00		
520.78	0.61	521.80	8.98	522.82	14.08		
520.80	0.70	521.82	9.07	522.84	14.16		
520.82	0.80	521.84	9.13	522.86	14.24		
520.84	0.91	521.86	9.30	522.88	14.32		
520.86	1.02	521.88	9.46	522.90	14.40		
520.88	1.14	521.90	9.62	522.92	14.47		
520.90	1.26	521.92	9.78	522.94	14.55		
520.92	1.39	521.94	9.90	522.96	14.63		
520.94	1.52	521.96	10.02	522.98	14.71		
520.96	1.66	521.98	10.12	523.00	14.78		
520.98	1.80	522.00	10.22	523.02	14.86		
521.00	1.95	522.02	10.31	523.04	14.94		

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Stage-Area-Storage for Pond 20P: Retention Basin

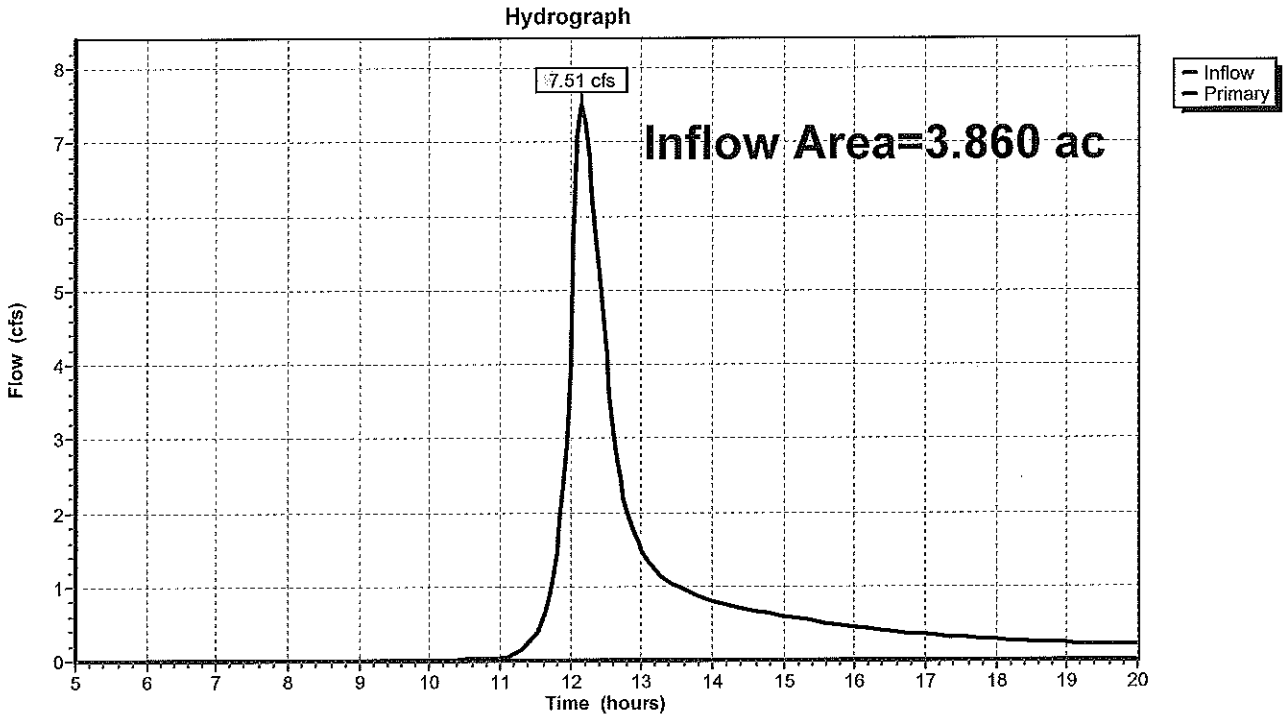
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.00	3,310	0
520.05	3,404	168
520.10	3,497	340
520.15	3,591	518
520.20	3,684	699
520.25	3,778	886
520.30	3,871	1,077
520.35	3,965	1,273
520.40	4,058	1,474
520.45	4,152	1,679
520.50	4,245	1,889
520.55	4,339	2,103
520.60	4,432	2,323
520.65	4,526	2,547
520.70	4,619	2,775
520.75	4,713	3,009
520.80	4,806	3,247
520.85	4,900	3,489
520.90	4,993	3,737
520.95	5,087	3,989
521.00	5,181	4,245
521.05	5,274	4,507
521.10	5,368	4,773
521.15	5,461	5,043
521.20	5,555	5,319
521.25	5,648	5,599
521.30	5,742	5,884
521.35	5,835	6,173
521.40	5,929	6,467
521.45	6,022	6,766
521.50	6,116	7,069
521.55	6,209	7,377
521.60	6,303	7,690
521.65	6,396	8,008
521.70	6,490	8,330
521.75	6,583	8,657
521.80	6,677	8,988
521.85	6,770	9,324
521.90	6,864	9,665
521.95	6,957	10,011
522.00	7,051	10,361
522.05	7,323	10,720
522.10	7,594	11,093
522.15	7,866	11,480
522.20	8,138	11,880
522.25	8,409	12,294
522.30	8,681	12,721
522.35	8,952	13,162
522.40	9,224	13,616
522.45	9,496	14,084
522.50	9,767	14,566
522.55	10,039	15,061
522.60	10,311	15,569
522.65	10,582	16,092
522.70	10,854	16,628
522.75	11,126	17,177
522.80	11,397	17,740
522.85	11,669	18,317
522.90	11,940	18,907
522.95	12,212	19,511
523.00	12,484	20,128
523.05	12,755	20,759
523.10	**13,027**	**21,404**

Link DP: Design Point

Inflow Area =	3.860 ac,	Inflow Depth >	2.17"	
Inflow =	7.51 cfs @	12.16 hrs, Volume=	0.697 af	
Primary =	7.51 cfs @	12.16 hrs, Volume=	0.697 af,	Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link DP: Design Point



Hydrograph for Link DP: Design Point

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	**0.00**	0.00
5.25	0.00	0.00	0.00
5.50	0.00	0.00	0.00
5.75	0.00	0.00	0.00
6.00	0.00	0.00	0.00
6.25	0.00	0.00	0.00
6.50	0.00	0.00	0.00
6.75	0.00	0.00	0.00
7.00	0.00	0.00	0.00
7.25	0.00	0.00	0.00
7.50	0.00	0.00	0.00
7.75	0.00	0.00	0.00
8.00	0.00	0.00	0.00
8.25	0.00	0.00	0.00
8.50	0.00	0.00	0.00
8.75	0.00	0.00	0.00
9.00	0.00	0.00	0.00
9.25	0.00	0.00	0.00
9.50	0.00	0.00	0.00
9.75	0.00	0.00	0.00
10.00	0.00	0.00	0.00
10.25	0.01	0.00	0.01
10.50	0.01	0.00	0.01
10.75	0.02	0.00	0.02
11.00	0.03	0.00	0.03
11.25	0.10	0.00	0.10
11.50	0.36	0.00	0.36
11.75	1.14	0.00	1.14
12.00	**3.97**	0.00	**3.97**
12.25	**6.82**	0.00	**6.82**
12.50	4.15	0.00	4.15
12.75	2.19	0.00	2.19
13.00	1.49	0.00	1.49
13.25	1.15	0.00	1.15
13.50	0.99	0.00	0.99
13.75	0.89	0.00	0.89
14.00	0.80	0.00	0.80
14.25	0.73	0.00	0.73
14.50	0.68	0.00	0.68
14.75	0.64	0.00	0.64
15.00	0.60	0.00	0.60
15.25	0.56	0.00	0.56
15.50	0.52	0.00	0.52
15.75	0.48	0.00	0.48
16.00	0.44	0.00	0.44
16.25	0.41	0.00	0.41
16.50	0.38	0.00	0.38
16.75	0.36	0.00	0.36
17.00	0.34	0.00	0.34
17.25	0.32	0.00	0.32
17.50	0.31	0.00	0.31
17.75	0.29	0.00	0.29
18.00	0.27	0.00	0.27
18.25	0.26	0.00	0.26
18.50	0.25	0.00	0.25
18.75	0.24	0.00	0.24
19.00	0.23	0.00	0.23
19.25	0.22	0.00	0.22
19.50	0.22	0.00	0.22
19.75	0.21	0.00	0.21
20.00	0.20	0.00	0.20

PROPOSED CONDITIONS

25 YEAR STORM

274 Prospect Street - Post development
Prepared by {enter your company name here}
HydroCAD® 7.10 s/n 000655 © 2005 HydroCAD Software Solutions LLC

Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 10S: Overland runoff basin Runoff Area=3.290 ac Runoff Depth>3.14"
Flow Length=388' Tc=5.0 min CN=82 Runoff=12.86 cfs 0.861 af

Subcatchment 30S: Overland runoff to Prospect Street Runoff Area=0.570 ac Runoff Depth>2.25"
Flow Length=20' Tc=5.0 min CN=72 Runoff=1.62 cfs 0.107 af

Pond 20P: Retention Basin Peak Elev=521.70' Storage=8,362 cf Inflow=12.86 cfs 0.861 af
Outflow=8.34 cfs 0.801 af

Link DP: Design Point Inflow=9.47 cfs 0.908 af
Primary=9.47 cfs 0.908 af

Total Runoff Area = 3.860 ac Runoff Volume = 0.968 af Average Runoff Depth = 3.01"

Subcatchment 10S: Overland runoff basin

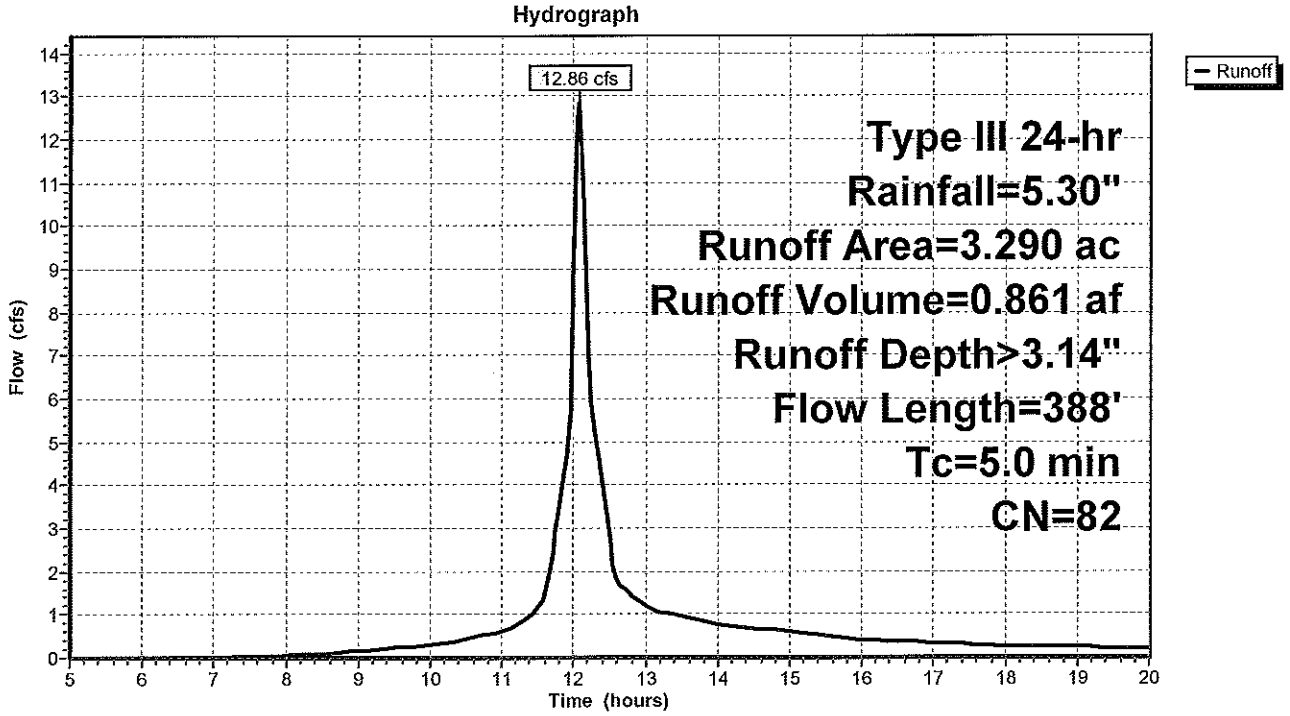
Runoff = 12.86 cfs @ 12.08 hrs, Volume= 0.861 af, Depth> 3.14"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=5.30"

Area (ac)	CN	Description
1.040	98	Paved parking & roofs
2.250	74	>75% Grass cover, Good, HSG C
3.290	82	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	388		1.3		**Direct Entry, Path 1**

Subcatchment 10S: Overland runoff basin



Hydrograph for Subcatchment 10S: Overland runoff basin

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.30	0.00	0.00
5.25	0.32	0.00	0.00
5.50	0.34	0.00	0.00
5.75	0.36	0.00	0.00
6.00	0.38	0.00	0.00
6.25	0.40	0.00	0.00
6.50	0.43	0.00	0.00
6.75	0.45	0.00	0.00
7.00	0.48	0.00	0.01
7.25	0.51	0.00	0.02
7.50	0.54	0.00	0.03
7.75	0.57	0.01	0.04
8.00	0.60	0.01	0.06
8.25	0.64	0.02	0.08
8.50	0.68	0.02	0.10
8.75	0.72	0.03	0.12
9.00	0.77	0.04	0.15
9.25	0.82	0.06	0.19
9.50	0.88	0.07	0.22
9.75	0.94	0.09	0.26
10.00	1.00	0.11	0.30
10.25	1.07	0.14	0.36
10.50	1.15	0.17	0.44
10.75	1.23	0.21	0.52
11.00	1.32	0.25	0.60
11.25	1.44	0.31	0.81
11.50	1.58	0.39	1.09
11.75	1.88	0.57	2.92
12.00	2.65	1.11	**8.60**
12.25	3.42	1.71	**5.92**
12.50	3.72	1.97	2.75
12.75	3.86	2.09	1.53
13.00	3.97	2.18	1.20
13.25	4.07	2.26	1.04
13.50	4.15	2.33	0.95
13.75	4.23	2.40	0.86
14.00	4.30	2.46	0.78
14.25	4.36	2.51	0.72
14.50	4.42	2.57	0.68
14.75	4.48	2.61	0.64
15.00	4.53	2.66	0.59
15.25	4.58	2.70	0.55
15.50	4.62	2.74	0.51
15.75	4.66	2.78	0.46
16.00	4.70	2.81	0.42
16.25	4.73	2.84	0.39
16.50	4.76	2.87	0.37
16.75	4.79	2.89	0.35
17.00	4.82	2.92	0.33
17.25	4.85	2.94	0.31
17.50	4.87	2.97	0.30
17.75	4.90	2.99	0.28
18.00	4.92	3.01	0.26
18.25	4.94	3.02	0.25
18.50	4.96	3.04	0.24
18.75	4.98	3.06	0.24
19.00	5.00	3.08	0.23
19.25	5.02	3.10	0.22
19.50	5.04	3.11	0.22
19.75	5.05	3.13	0.21
20.00	**5.07**	**3.14**	0.21

Subcatchment 30S: Overland runoff to Prospect Street

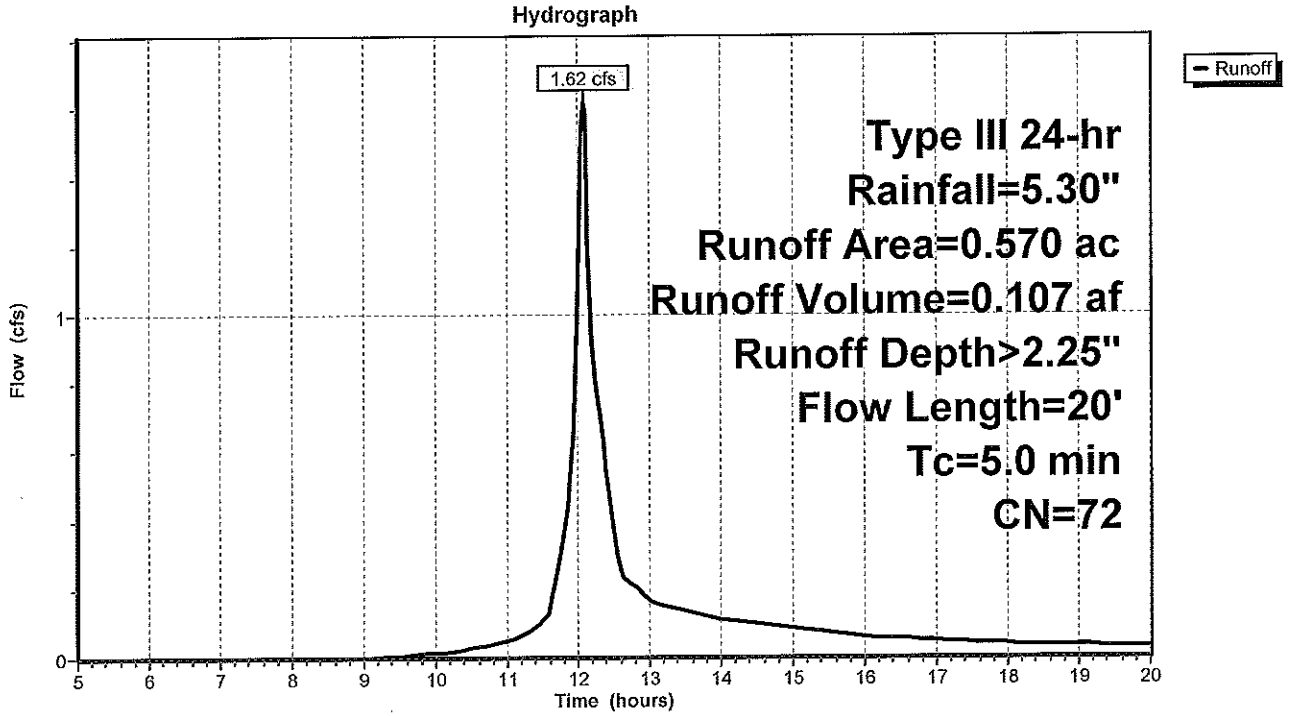
Runoff = 1.62 cfs @ 12.08 hrs, Volume= 0.107 af, Depth> 2.25"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=5.30"

Area (ac)	CN	Description
0.310	71	Meadow, non-grazed, HSG C
0.260	74	>75% Grass cover, Good, HSG C
0.570	72	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	20		0.1		**Direct Entry, Path 1**

Subcatchment 30S: Overland runoff to Prospect Street



Hydrograph for Subcatchment 30S: Overland runoff to Prospect Street

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.30	0.00	0.00
5.25	0.32	0.00	0.00
5.50	0.34	0.00	0.00
5.75	0.36	0.00	0.00
6.00	0.38	0.00	0.00
6.25	0.40	0.00	0.00
6.50	0.43	0.00	0.00
6.75	0.45	0.00	0.00
7.00	0.48	0.00	0.00
7.25	0.51	0.00	0.00
7.50	0.54	0.00	0.00
7.75	0.57	0.00	0.00
8.00	0.60	0.00	0.00
8.25	0.64	0.00	0.00
8.50	0.68	0.00	0.00
8.75	0.72	0.00	0.00
9.00	0.77	0.00	0.00
9.25	0.82	0.00	0.00
9.50	0.88	0.00	0.01
9.75	0.94	0.01	0.01
10.00	1.00	0.01	0.01
10.25	1.07	0.02	0.02
10.50	1.15	0.03	0.03
10.75	1.23	0.05	0.04
11.00	1.32	0.07	0.05
11.25	1.44	0.10	0.07
11.50	1.58	0.14	0.10
11.75	1.88	0.24	0.30
12.00	2.65	0.61	**1.02**
12.25	3.42	1.07	**0.79**
12.50	3.72	1.27	0.38
12.75	3.86	1.36	0.22
13.00	3.97	1.44	0.17
13.25	4.07	1.51	0.15
13.50	4.15	1.57	0.14
13.75	4.23	1.62	0.12
14.00	4.30	1.67	0.11
14.25	4.36	1.72	0.10
14.50	4.42	1.76	0.10
14.75	4.48	1.80	0.09
15.00	4.53	1.84	0.09
15.25	4.58	1.88	0.08
15.50	4.62	1.91	0.07
15.75	4.66	1.94	0.07
16.00	4.70	1.97	0.06
16.25	4.73	1.99	0.06
16.50	4.76	2.02	0.05
16.75	4.79	2.04	0.05
17.00	4.82	2.06	0.05
17.25	4.85	2.08	0.05
17.50	4.87	2.10	0.04
17.75	4.90	2.12	0.04
18.00	4.92	2.14	0.04
18.25	4.94	2.15	0.04
18.50	4.96	2.17	0.04
18.75	4.98	2.18	0.04
19.00	5.00	2.20	0.03
19.25	5.02	2.21	0.03
19.50	5.04	2.23	0.03
19.75	5.05	2.24	0.03
20.00	**5.07**	**2.25**	0.03

Pond 20P: Retention Basin

Inflow Area =	3.290 ac,	Inflow Depth > 3.14"		
Inflow =	12.86 cfs @	12.08 hrs, Volume=	0.861 af	
Outflow =	8.34 cfs @	12.17 hrs, Volume=	0.801 af,	Atten= 35%, Lag= 5.9 min
Primary =	8.34 cfs @	12.17 hrs, Volume=	0.801 af	

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 521.70' @ 12.17 hrs Surf.Area= 6,499 sf Storage= 8,362 cf
Plug-Flow detention time= 50.8 min calculated for 0.801 af (93% of inflow)
Center-of-Mass det. time= 26.6 min (806.3 - 779.7)

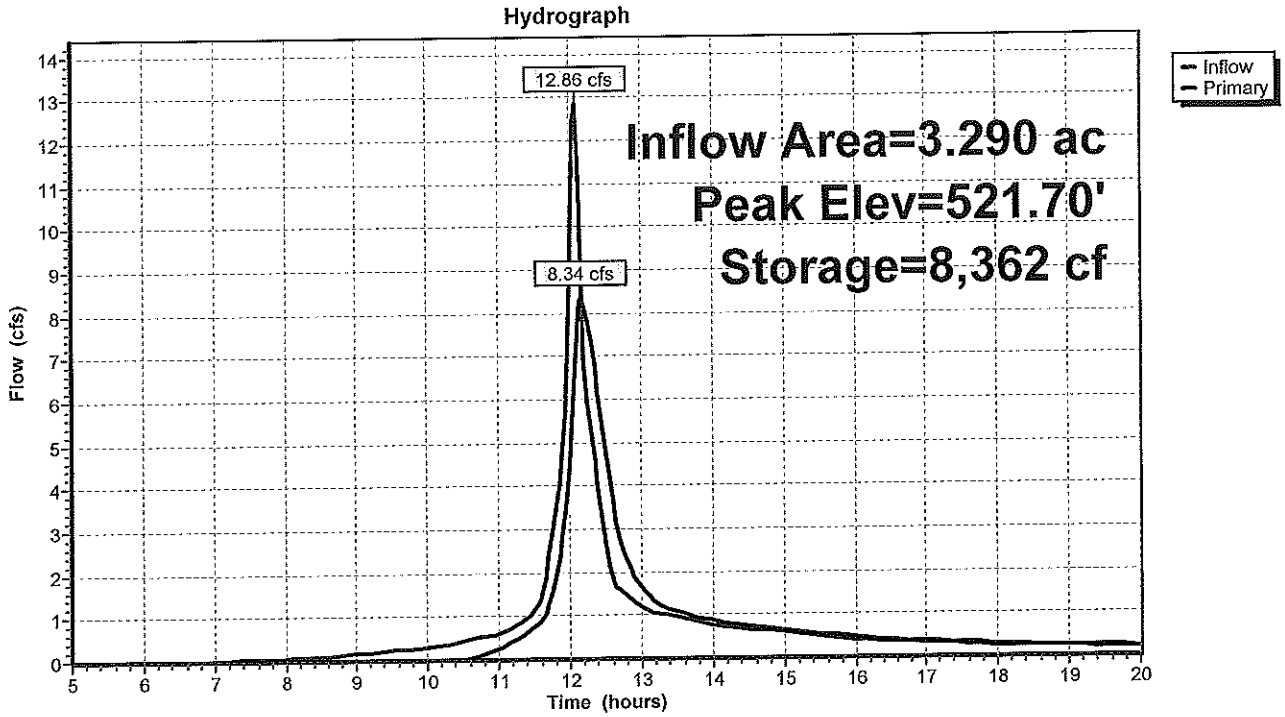
Volume	Invert	Avail.Storage	Storage Description
#1	520.00'	21,404 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
520.00	3,310	0	0
522.00	7,051	10,361	10,361
523.10	13,027	11,043	21,404

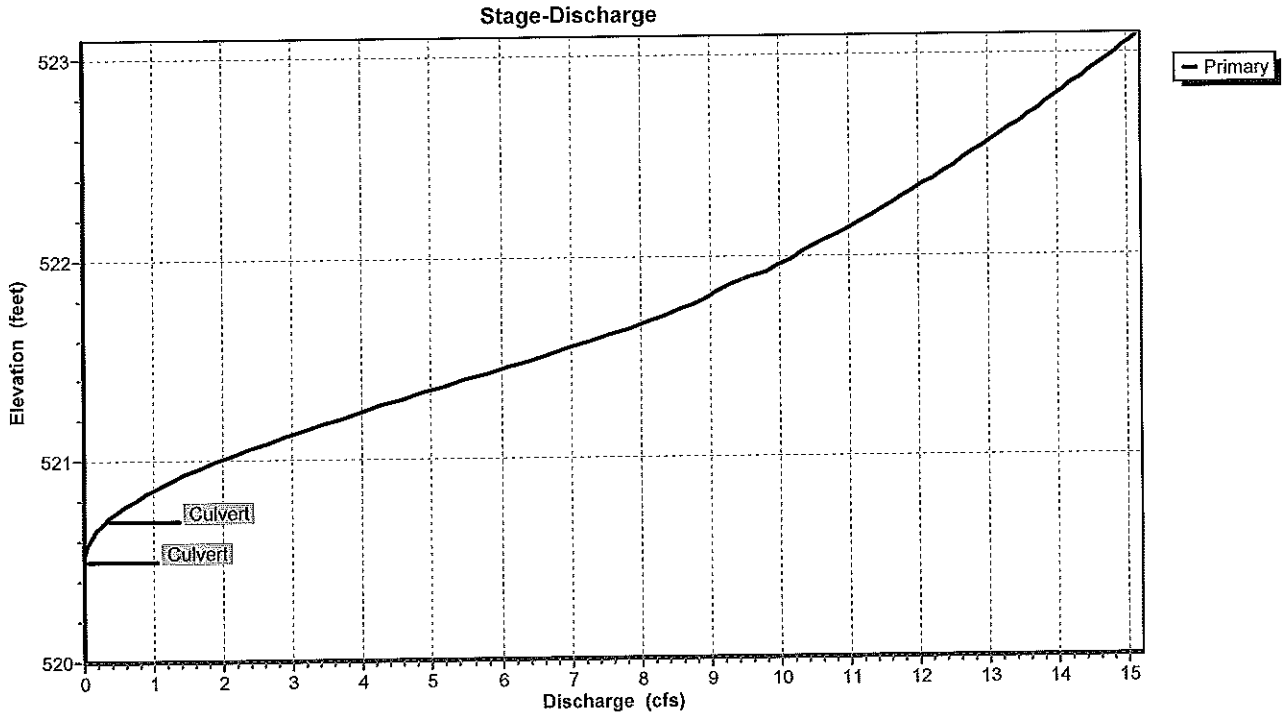
Device	Routing	Invert	Outlet Devices
#1	Primary	520.50'	**12.0" x 20.0' long Culvert X 2.00** Ke= 0.600 Outlet Invert= 520.30' S= 0.0100 '/' Cc= 0.900 n= 0.012
#2	Primary	520.70'	**12.0" x 18.0' long Culvert** Ke= 0.600 Outlet Invert= 520.52' S= 0.0100 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=8.26 cfs @ 12.17 hrs HW=521.69' (Free Discharge)
└─**1=Culvert** (Inlet Controls 5.91 cfs @ 3.8 fps)
└─**2=Culvert** (Barrel Controls 2.35 cfs @ 3.7 fps)

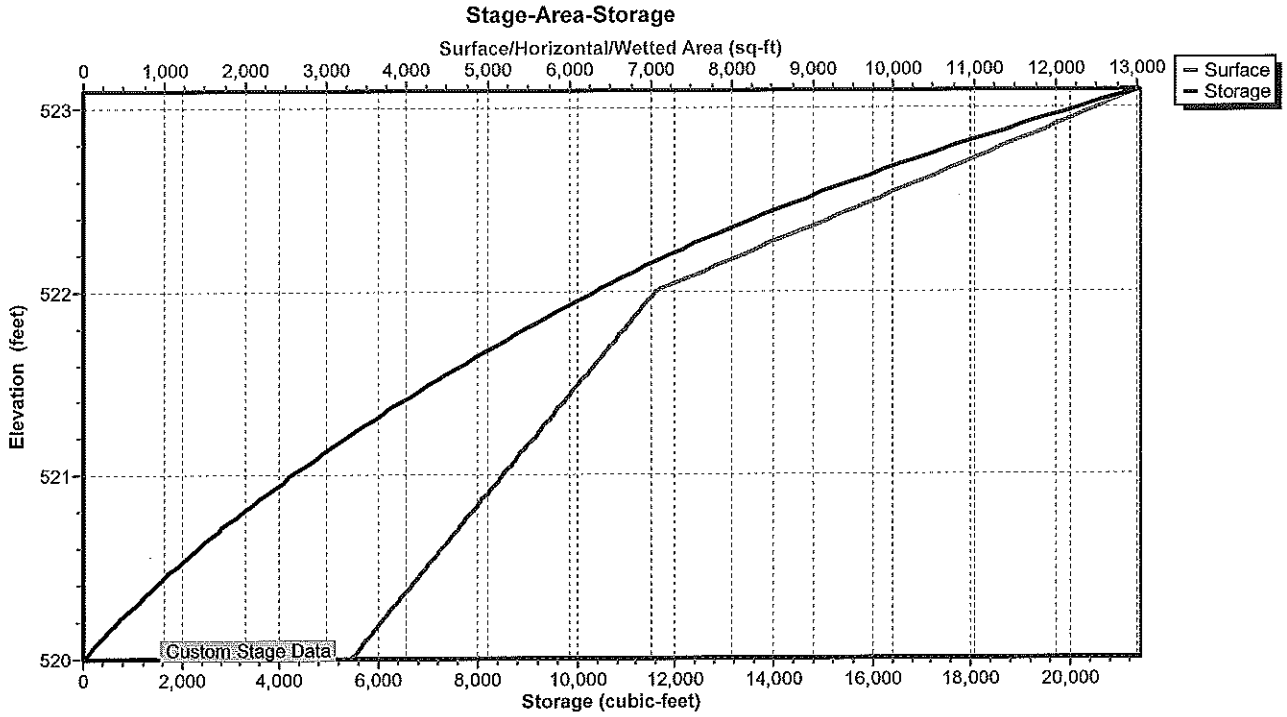
Pond 20P: Retention Basin



Pond 20P: Retention Basin



Pond 20P: Retention Basin



Hydrograph for Pond 20P: Retention Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	520.00	0.00
5.50	0.00	0	520.00	0.00
6.00	0.00	0	520.00	0.00
6.50	0.00	0	520.00	0.00
7.00	0.01	6	520.00	0.00
7.50	0.03	43	520.01	0.00
8.00	0.06	122	520.04	0.00
8.50	0.10	258	520.08	0.00
9.00	0.15	482	520.14	0.00
9.50	0.22	816	520.23	0.00
10.00	0.30	1,286	520.35	0.00
10.50	0.44	1,941	520.51	0.00
11.00	0.60	2,688	520.68	0.26
11.50	1.09	3,295	520.81	0.75
12.00	**8.60**	**5,794**	**521.28**	**4.41**
12.50	**2.75**	**6,078**	**521.33**	**4.88**
13.00	1.20	4,030	520.96	1.65
13.50	0.95	3,587	520.87	1.08
14.00	0.78	3,404	520.83	0.87
14.50	0.68	3,276	520.81	0.73
15.00	0.59	3,184	520.79	0.64
15.50	0.51	3,093	520.77	0.56
16.00	0.42	2,995	520.75	0.47
16.50	0.37	2,912	520.73	0.41
17.00	0.33	2,852	520.72	0.36
17.50	0.30	2,797	520.70	0.33
18.00	0.26	2,739	520.69	0.29
18.50	0.24	2,692	520.68	0.26
19.00	0.23	2,662	520.68	0.24
19.50	0.22	2,638	520.67	0.23
20.00	0.21	2,616	520.67	0.22

Stage-Discharge for Pond 20P: Retention Basin

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
520.00	0.00	521.02	2.10	522.04	10.38	523.06	15.01
520.02	0.00	521.04	2.26	522.06	10.51	523.08	15.09
520.04	0.00	521.06	2.41	522.08	10.64	523.10	**15.16**
520.06	0.00	521.08	2.58	522.10	10.76		
520.08	0.00	521.10	2.74	522.12	10.89		
520.10	0.00	521.12	2.91	522.14	11.01		
520.12	0.00	521.14	3.09	522.16	11.11		
520.14	0.00	521.16	3.26	522.18	11.21		
520.16	0.00	521.18	3.44	522.20	11.31		
520.18	0.00	521.20	3.62	522.22	11.41		
520.20	0.00	521.22	3.81	522.24	11.51		
520.22	0.00	521.24	3.99	522.26	11.61		
520.24	0.00	521.26	4.18	522.28	11.71		
520.26	0.00	521.28	4.37	522.30	11.80		
520.28	0.00	521.30	4.56	522.32	11.90		
520.30	0.00	521.32	4.75	522.34	11.99		
520.32	0.00	521.34	4.94	522.36	12.09		
520.34	0.00	521.36	5.14	522.38	12.18		
520.36	0.00	521.38	5.33	522.40	12.27		
520.38	0.00	521.40	5.53	522.42	12.37		
520.40	0.00	521.42	5.72	522.44	12.46		
520.42	0.00	521.44	5.92	522.46	12.55		
520.44	0.00	521.46	6.12	522.48	12.64		
520.46	0.00	521.48	6.31	522.50	12.73		
520.48	0.00	521.50	6.50	522.52	12.82		
520.50	0.00	521.52	6.70	522.54	12.90		
520.52	0.00	521.54	6.89	522.56	12.99		
520.54	0.01	521.56	7.08	522.58	13.08		
520.56	0.03	521.58	7.26	522.60	13.16		
520.58	0.05	521.60	7.45	522.62	13.25		
520.60	0.08	521.62	7.63	522.64	13.33		
520.62	0.12	521.64	7.80	522.66	13.42		
520.64	0.16	521.66	7.98	522.68	13.50		
520.66	0.20	521.68	8.14	522.70	13.59		
520.68	0.26	521.70	8.30	522.72	13.67		
520.70	0.31	521.72	8.45	522.74	13.75		
520.72	0.38	521.74	8.59	522.76	13.83		
520.74	0.45	521.76	8.73	522.78	13.92		
520.76	0.52	521.78	8.87	522.80	14.00		
520.78	0.61	521.80	8.98	522.82	14.08		
520.80	0.70	521.82	9.07	522.84	14.16		
520.82	0.80	521.84	9.13	522.86	14.24		
520.84	0.91	521.86	9.30	522.88	14.32		
520.86	1.02	521.88	9.46	522.90	14.40		
520.88	1.14	521.90	9.62	522.92	14.47		
520.90	1.26	521.92	9.78	522.94	14.55		
520.92	1.39	521.94	9.90	522.96	14.63		
520.94	1.52	521.96	10.02	522.98	14.71		
520.96	1.66	521.98	10.12	523.00	14.78		
520.98	1.80	522.00	10.22	523.02	14.86		
521.00	1.95	522.02	10.31	523.04	14.94		

Stage-Area-Storage for Pond 20P: Retention Basin

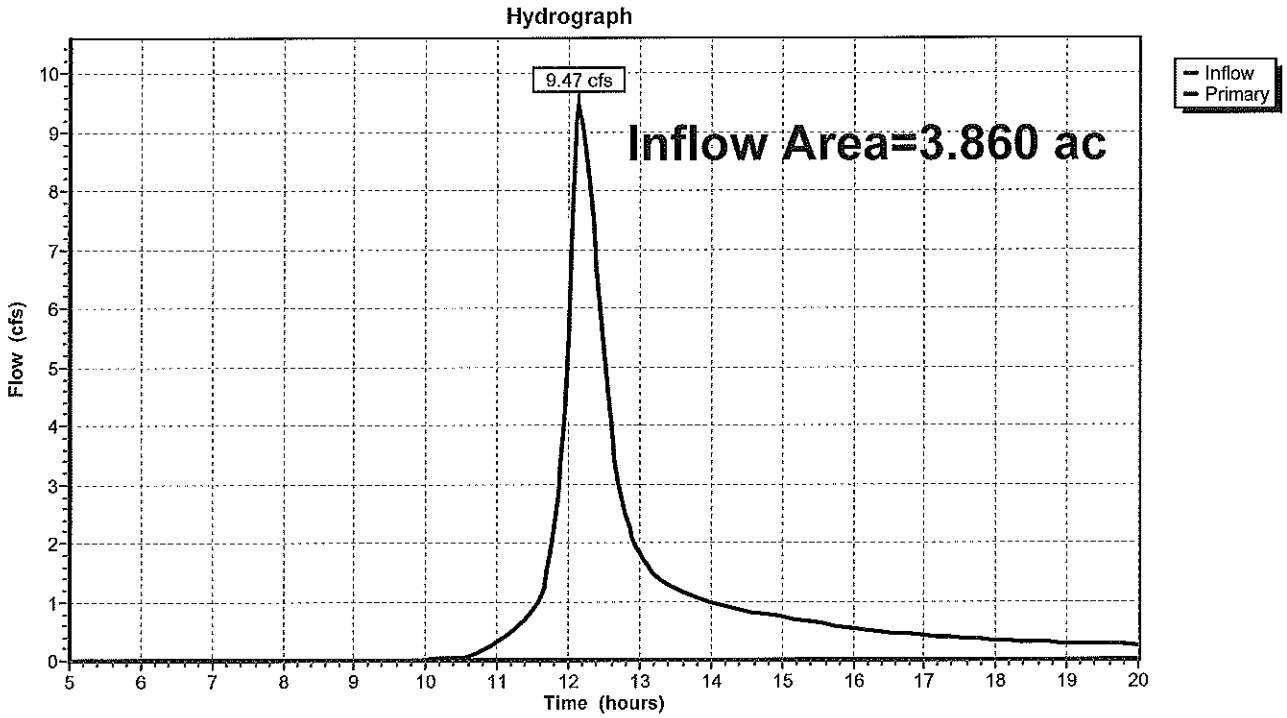
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.00	3,310	0
520.05	3,404	168
520.10	3,497	340
520.15	3,591	518
520.20	3,684	699
520.25	3,778	886
520.30	3,871	1,077
520.35	3,965	1,273
520.40	4,058	1,474
520.45	4,152	1,679
520.50	4,245	1,889
520.55	4,339	2,103
520.60	4,432	2,323
520.65	4,526	2,547
520.70	4,619	2,775
520.75	4,713	3,009
520.80	4,806	3,247
520.85	4,900	3,489
520.90	4,993	3,737
520.95	5,087	3,989
521.00	5,181	4,245
521.05	5,274	4,507
521.10	5,368	4,773
521.15	5,461	5,043
521.20	5,555	5,319
521.25	5,648	5,599
521.30	5,742	5,884
521.35	5,835	6,173
521.40	5,929	6,467
521.45	6,022	6,766
521.50	6,116	7,069
521.55	6,209	7,377
521.60	6,303	7,690
521.65	6,396	8,008
521.70	6,490	8,330
521.75	6,583	8,657
521.80	6,677	8,988
521.85	6,770	9,324
521.90	6,864	9,665
521.95	6,957	10,011
522.00	7,051	10,361
522.05	7,323	10,720
522.10	7,594	11,093
522.15	7,866	11,480
522.20	8,138	11,880
522.25	8,409	12,294
522.30	8,681	12,721
522.35	8,952	13,162
522.40	9,224	13,616
522.45	9,496	14,084
522.50	9,767	14,566
522.55	10,039	15,061
522.60	10,311	15,569
522.65	10,582	16,092
522.70	10,854	16,628
522.75	11,126	17,177
522.80	11,397	17,740
522.85	11,669	18,317
522.90	11,940	18,907
522.95	12,212	19,511
523.00	12,484	20,128
523.05	12,755	20,759
523.10	**13,027**	**21,404**

Link DP: Design Point

Inflow Area =	3.860 ac,	Inflow Depth >	2.82"	
Inflow =	9.47 cfs @	12.15 hrs, Volume=	0.908 af	
Primary =	9.47 cfs @	12.15 hrs, Volume=	0.908 af,	Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link DP: Design Point



Hydrograph for Link DP: Design Point

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	**0.00**	0.00
5.25	0.00	0.00	0.00
5.50	0.00	0.00	0.00
5.75	0.00	0.00	0.00
6.00	0.00	0.00	0.00
6.25	0.00	0.00	0.00
6.50	0.00	0.00	0.00
6.75	0.00	0.00	0.00
7.00	0.00	0.00	0.00
7.25	0.00	0.00	0.00
7.50	0.00	0.00	0.00
7.75	0.00	0.00	0.00
8.00	0.00	0.00	0.00
8.25	0.00	0.00	0.00
8.50	0.00	0.00	0.00
8.75	0.00	0.00	0.00
9.00	0.00	0.00	0.00
9.25	0.00	0.00	0.00
9.50	0.01	0.00	0.01
9.75	0.01	0.00	0.01
10.00	0.01	0.00	0.01
10.25	0.02	0.00	0.02
10.50	0.03	0.00	0.03
10.75	0.13	0.00	0.13
11.00	0.31	0.00	0.31
11.25	0.54	0.00	0.54
11.50	0.85	0.00	0.85
11.75	1.86	0.00	1.86
12.00	**5.43**	0.00	**5.43**
12.25	**8.66**	0.00	**8.66**
12.50	5.26	0.00	5.26
12.75	2.70	0.00	2.70
13.00	1.82	0.00	1.82
13.25	1.40	0.00	1.40
13.50	1.21	0.00	1.21
13.75	1.09	0.00	1.09
14.00	0.98	0.00	0.98
14.25	0.89	0.00	0.89
14.50	0.83	0.00	0.83
14.75	0.78	0.00	0.78
15.00	0.73	0.00	0.73
15.25	0.68	0.00	0.68
15.50	0.63	0.00	0.63
15.75	0.58	0.00	0.58
16.00	0.54	0.00	0.54
16.25	0.49	0.00	0.49
16.50	0.46	0.00	0.46
16.75	0.44	0.00	0.44
17.00	0.41	0.00	0.41
17.25	0.39	0.00	0.39
17.50	0.37	0.00	0.37
17.75	0.35	0.00	0.35
18.00	0.33	0.00	0.33
18.25	0.31	0.00	0.31
18.50	0.30	0.00	0.30
18.75	0.29	0.00	0.29
19.00	0.28	0.00	0.28
19.25	0.27	0.00	0.27
19.50	0.26	0.00	0.26
19.75	0.26	0.00	0.26
20.00	0.25	0.00	0.25

PROPOSED CONDITIONS

100 YEAR STORM

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Time span=5.00-20.00 hrs, dt=0.05 hrs, 301 points
Runoff by SCS TR-20 method, UH=SCS
Reach routing by Stor-Ind+Trans method - Pond routing by Stor-Ind method

Subcatchment 10S: Overland runoff basin Runoff Area=3.290 ac Runoff Depth>4.27"
Flow Length=388' Tc=5.0 min CN=82 Runoff=17.39 cfs 1.172 af

Subcatchment 30S: Overland runoff to Prospect Street Runoff Area=0.570 ac Runoff Depth>3.25"
Flow Length=20' Tc=5.0 min CN=72 Runoff=2.33 cfs 0.154 af

Pond 20P: Retention Basin Peak Elev=522.02' Storage=10,522 cf Inflow=17.39 cfs 1.172 af
Outflow=10.32 cfs 1.110 af

Link DP: Design Point Inflow=11.98 cfs 1.264 af
Primary=11.98 cfs 1.264 af

Total Runoff Area = 3.860 ac Runoff Volume = 1.326 af Average Runoff Depth = 4.12"

Subcatchment 10S: Overland runoff basin

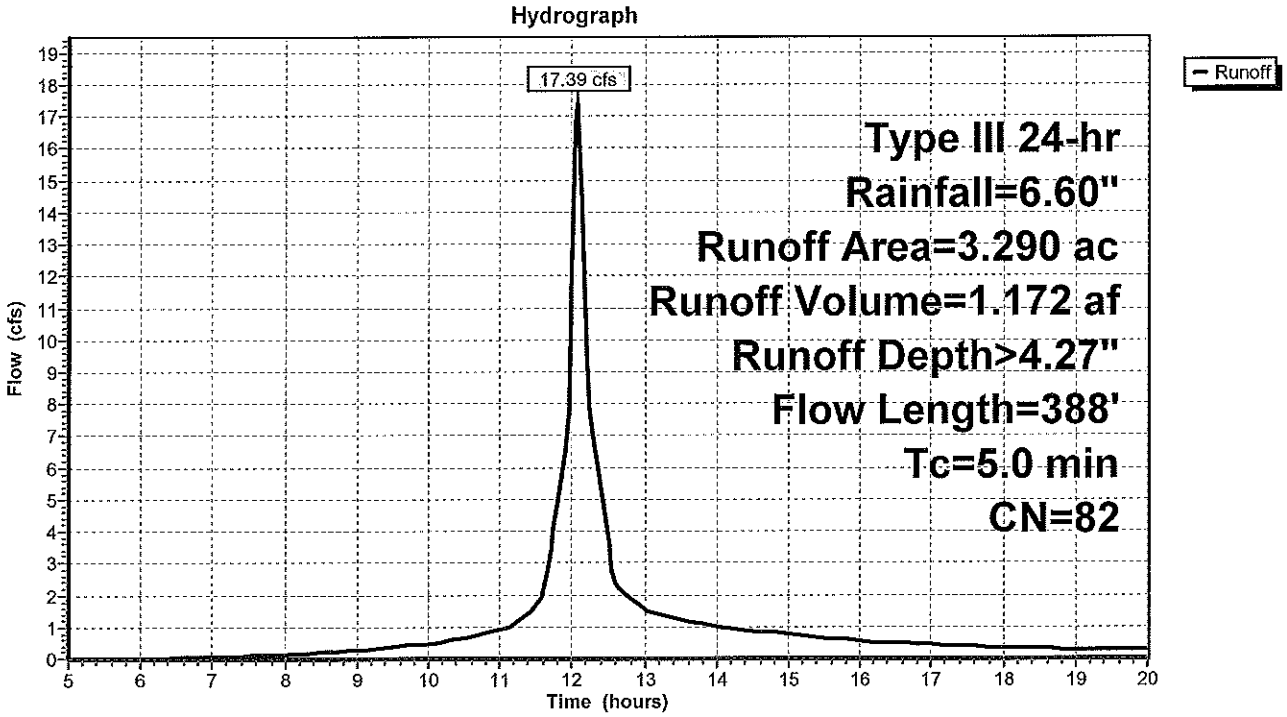
Runoff = 17.39 cfs @ 12.07 hrs, Volume= 1.172 af, Depth> 4.27"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=6.60"

Area (ac)	CN	Description
1.040	98	Paved parking & roofs
2.250	74	>75% Grass cover, Good, HSG C
3.290	82	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	388		1.3		**Direct Entry, Path 1**

Subcatchment 10S: Overland runoff basin



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Hydrograph for Subcatchment 10S: Overland runoff basin

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.37	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.01
6.25	0.50	0.00	0.02
6.50	0.53	0.00	0.03
6.75	0.56	0.01	0.04
7.00	0.60	0.01	0.06
7.25	0.63	0.02	0.07
7.50	0.67	0.02	0.09
7.75	0.71	0.03	0.11
8.00	0.75	0.04	0.13
8.25	0.80	0.05	0.15
8.50	0.85	0.06	0.19
8.75	0.90	0.08	0.23
9.00	0.96	0.10	0.27
9.25	1.03	0.12	0.32
9.50	1.10	0.15	0.37
9.75	1.17	0.18	0.42
10.00	1.25	0.22	0.48
10.25	1.33	0.26	0.57
10.50	1.43	0.31	0.67
10.75	1.53	0.36	0.78
11.00	1.65	0.43	0.90
11.25	1.79	0.51	1.18
11.50	1.97	0.63	1.57
11.75	2.34	0.89	4.11
12.00	3.30	1.62	**11.72**
12.25	4.26	2.42	**7.82**
12.50	4.63	2.75	3.60
12.75	4.81	2.91	2.00
13.00	4.95	3.03	1.56
13.25	5.07	3.14	1.35
13.50	5.17	3.23	1.24
13.75	5.27	3.32	1.12
14.00	5.35	3.40	1.01
14.25	5.43	3.47	0.93
14.50	5.50	3.53	0.88
14.75	5.57	3.60	0.82
15.00	5.64	3.66	0.77
15.25	5.70	3.71	0.71
15.50	5.75	3.76	0.65
15.75	5.80	3.81	0.60
16.00	5.85	3.85	0.54
16.25	5.89	3.89	0.50
16.50	5.93	3.92	0.48
16.75	5.97	3.96	0.46
17.00	6.00	3.99	0.43
17.25	6.04	4.02	0.41
17.50	6.07	4.05	0.38
17.75	6.10	4.08	0.36
18.00	6.12	4.10	0.33
18.25	6.15	4.13	0.32
18.50	6.18	4.15	0.31
18.75	6.20	4.17	0.30
19.00	6.23	4.20	0.30
19.25	6.25	4.22	0.29
19.50	6.27	4.24	0.28
19.75	6.29	4.26	0.27
20.00	**6.32**	**4.28**	0.27

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Subcatchment 30S: Overland runoff to Prospect Street

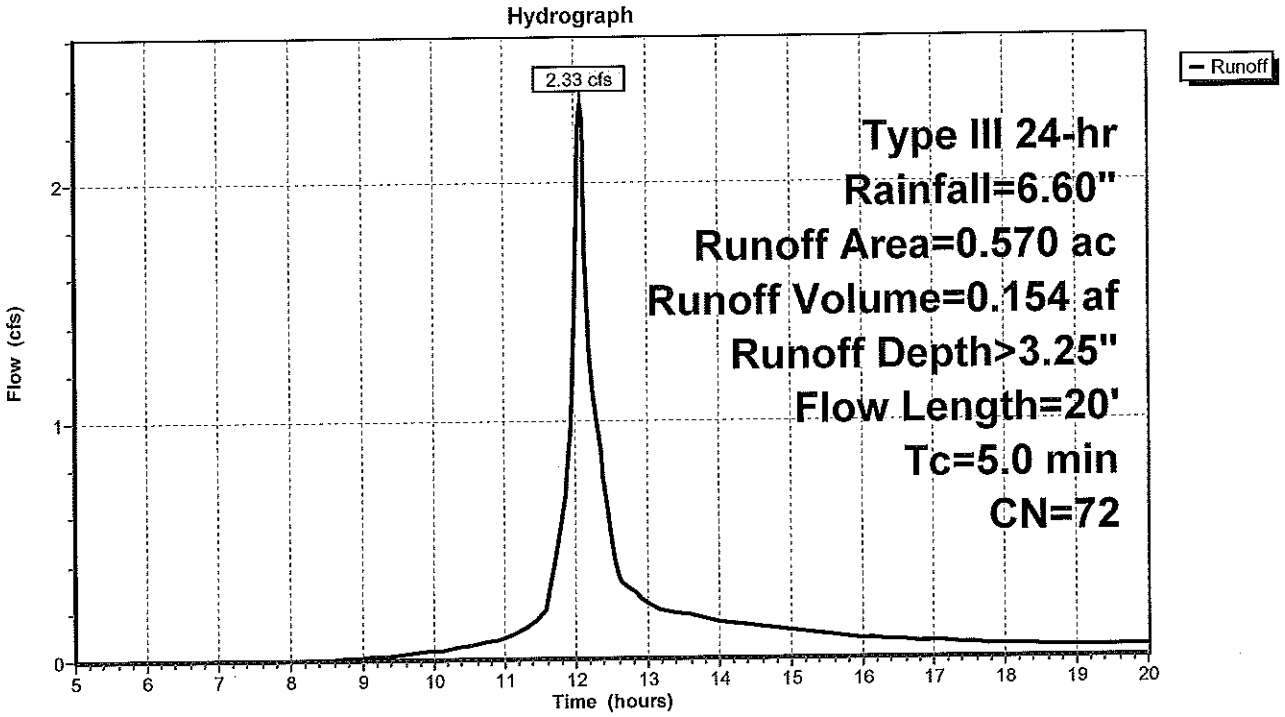
Runoff = 2.33 cfs @ 12.08 hrs, Volume= 0.154 af, Depth> 3.25"

Runoff by SCS TR-20 method, UH=SCS, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Type III 24-hr Rainfall=6.60"

Area (ac)	CN	Description
0.310	71	Meadow, non-grazed, HSG C
0.260	74	>75% Grass cover, Good, HSG C
0.570	72	Weighted Average

Tc (min)	Length (feet)	Slope (ft/ft)	Velocity (ft/sec)	Capacity (cfs)	Description
5.0	20		0.1		**Direct Entry, Path 1**

Subcatchment 30S: Overland runoff to Prospect Street



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Hydrograph for Subcatchment 30S: Overland runoff to Prospect Street

Time (hours)	Precip. (inches)	Excess (inches)	Runoff (cfs)
5.00	0.37	0.00	0.00
5.25	0.40	0.00	0.00
5.50	0.42	0.00	0.00
5.75	0.45	0.00	0.00
6.00	0.48	0.00	0.00
6.25	0.50	0.00	0.00
6.50	0.53	0.00	0.00
6.75	0.56	0.00	0.00
7.00	0.60	0.00	0.00
7.25	0.63	0.00	0.00
7.50	0.67	0.00	0.00
7.75	0.71	0.00	0.00
8.00	0.75	0.00	0.00
8.25	0.80	0.00	0.00
8.50	0.85	0.00	0.00
8.75	0.90	0.00	0.01
9.00	0.96	0.01	0.01
9.25	1.03	0.01	0.02
9.50	1.10	0.02	0.02
9.75	1.17	0.04	0.03
10.00	1.25	0.05	0.04
10.25	1.33	0.07	0.05
10.50	1.43	0.09	0.06
10.75	1.53	0.12	0.07
11.00	1.65	0.16	0.09
11.25	1.79	0.21	0.12
11.50	1.97	0.28	0.17
11.75	2.34	0.45	0.48
12.00	3.30	0.99	**1.52**
12.25	4.26	1.64	**1.11**
12.50	4.63	1.92	0.53
12.75	4.81	2.05	0.30
13.00	4.95	2.16	0.23
13.25	5.07	2.25	0.20
13.50	5.17	2.33	0.19
13.75	5.27	2.41	0.17
14.00	5.35	2.47	0.15
14.25	5.43	2.53	0.14
14.50	5.50	2.59	0.13
14.75	5.57	2.65	0.12
15.00	5.64	2.70	0.12
15.25	5.70	2.75	0.11
15.50	5.75	2.79	0.10
15.75	5.80	2.83	0.09
16.00	5.85	2.87	0.08
16.25	5.89	2.90	0.08
16.50	5.93	2.94	0.07
16.75	5.97	2.97	0.07
17.00	6.00	3.00	0.07
17.25	6.04	3.02	0.06
17.50	6.07	3.05	0.06
17.75	6.10	3.07	0.05
18.00	6.12	3.10	0.05
18.25	6.15	3.12	0.05
18.50	6.18	3.14	0.05
18.75	6.20	3.16	0.05
19.00	6.23	3.18	0.05
19.25	6.25	3.20	0.04
19.50	6.27	3.22	0.04
19.75	6.29	3.24	0.04
20.00	**6.32**	**3.25**	0.04

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Pond 20P: Retention Basin

Inflow Area =	3.290 ac,	Inflow Depth > 4.27"		
Inflow =	17.39 cfs @	12.07 hrs, Volume=	1.172 af	
Outflow =	10.32 cfs @	12.19 hrs, Volume=	1.110 af,	Atten= 41%, Lag= 6.7 min
Primary =	10.32 cfs @	12.19 hrs, Volume=	1.110 af	

Routing by Stor-Ind method, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs
Peak Elev= 522.02' @ 12.19 hrs Surf.Area= 7,174 sf Storage= 10,522 cf
Plug-Flow detention time= 43.7 min calculated for 1.106 af (94% of inflow)
Center-of-Mass det. time= 24.6 min (797.0 - 772.4)

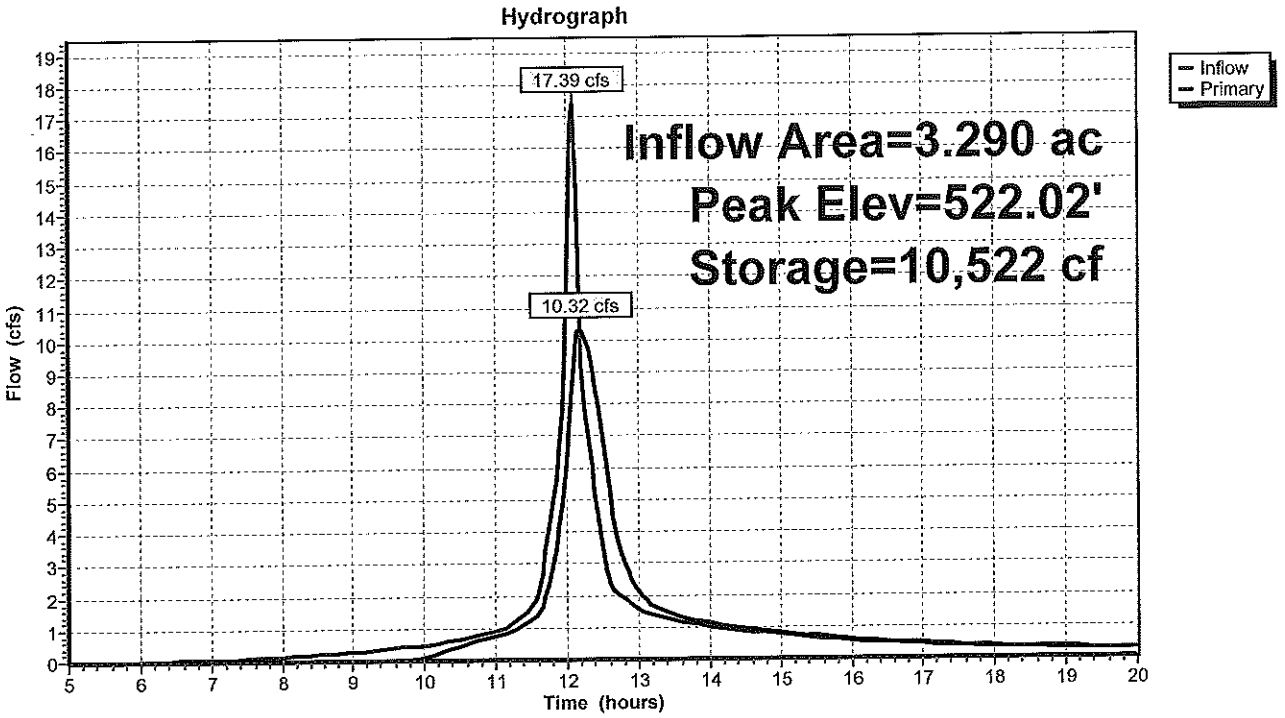
Volume	Invert	Avail.Storage	Storage Description
#1	520.00'	21,404 cf	**Custom Stage Data (Prismatic)** Listed below (Recalc)

Elevation (feet)	Surf.Area (sq-ft)	Inc.Store (cubic-feet)	Cum.Store (cubic-feet)
520.00	3,310	0	0
522.00	7,051	10,361	10,361
523.10	13,027	11,043	21,404

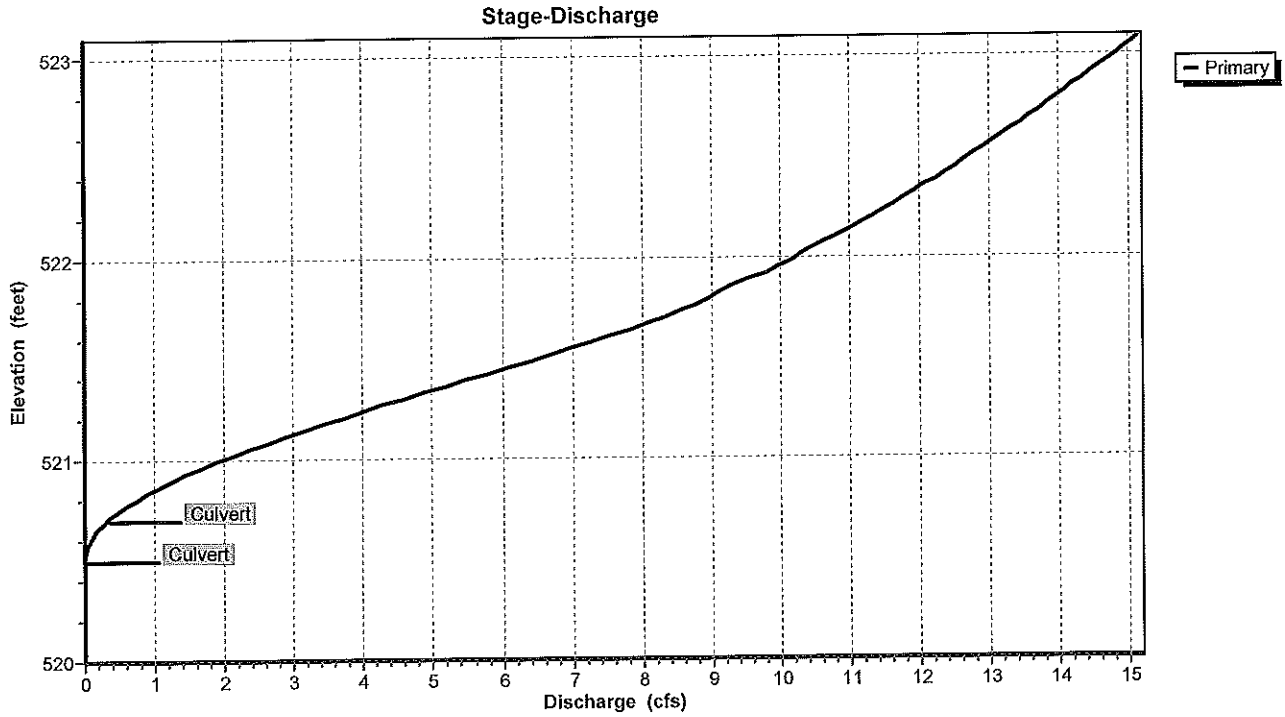
Device	Routing	Invert	Outlet Devices
#1	Primary	520.50'	**12.0" x 20.0' long Culvert X 2.00** Ke= 0.600 Outlet Invert= 520.30' S= 0.0100 '/' Cc= 0.900 n= 0.012
#2	Primary	520.70'	**12.0" x 18.0' long Culvert** Ke= 0.600 Outlet Invert= 520.52' S= 0.0100 '/' Cc= 0.900 n= 0.012

Primary OutFlow Max=10.29 cfs @ 12.19 hrs HW=522.02' (Free Discharge)
└─**1=Culvert** (Inlet Controls 7.15 cfs @ 4.6 fps)
└─**2=Culvert** (Barrel Controls 3.14 cfs @ 4.0 fps)

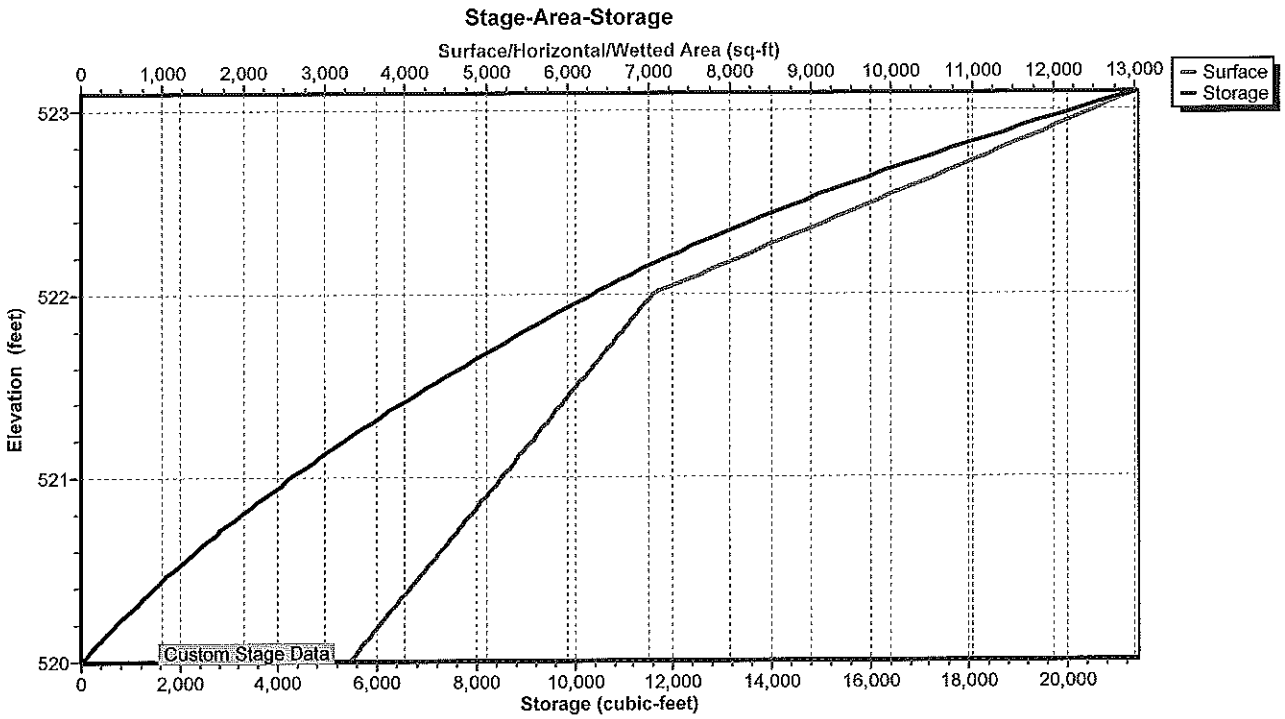
Pond 20P: Retention Basin



Pond 20P: Retention Basin



Pond 20P: Retention Basin



Hydrograph for Pond 20P: Retention Basin

Time (hours)	Inflow (cfs)	Storage (cubic-feet)	Elevation (feet)	Primary (cfs)
5.00	0.00	0	520.00	0.00
5.50	0.00	0	520.00	0.00
6.00	0.01	4	520.00	0.00
6.50	0.03	37	520.01	0.00
7.00	0.06	111	520.03	0.00
7.50	0.09	239	520.07	0.00
8.00	0.13	432	520.13	0.00
8.50	0.19	712	520.20	0.00
9.00	0.27	1,125	520.31	0.00
9.50	0.37	1,699	520.45	0.00
10.00	0.48	2,409	520.62	0.12
10.50	0.67	2,944	520.74	0.43
11.00	0.90	3,284	520.81	0.74
11.50	1.57	3,724	520.90	1.24
12.00	**11.72**	**6,877**	**521.47**	**6.20**
12.50	**3.60**	**7,398**	**521.55**	**7.01**
13.00	1.56	4,376	521.03	2.14
13.50	1.24	3,833	520.92	1.38
14.00	1.01	3,619	520.88	1.11
14.50	0.88	3,469	520.85	0.94
15.00	0.77	3,364	520.82	0.82
15.50	0.65	3,258	520.80	0.71
16.00	0.54	3,144	520.78	0.60
16.50	0.48	3,050	520.76	0.52
17.00	0.43	2,985	520.74	0.46
17.50	0.38	2,922	520.73	0.42
18.00	0.33	2,856	520.72	0.37
18.50	0.31	2,804	520.71	0.33
19.00	0.30	2,773	520.70	0.31
19.50	0.28	2,747	520.69	0.29
20.00	0.27	2,722	520.69	0.28

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Stage-Discharge for Pond 20P: Retention Basin

Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)	Elevation (feet)	Primary (cfs)
520.00	0.00	521.02	2.10	522.04	10.38	523.06	15.01
520.02	0.00	521.04	2.26	522.06	10.51	523.08	15.09
520.04	0.00	521.06	2.41	522.08	10.64	523.10	**15.16**
520.06	0.00	521.08	2.58	522.10	10.76		
520.08	0.00	521.10	2.74	522.12	10.89		
520.10	0.00	521.12	2.91	522.14	11.01		
520.12	0.00	521.14	3.09	522.16	11.11		
520.14	0.00	521.16	3.26	522.18	11.21		
520.16	0.00	521.18	3.44	522.20	11.31		
520.18	0.00	521.20	3.62	522.22	11.41		
520.20	0.00	521.22	3.81	522.24	11.51		
520.22	0.00	521.24	3.99	522.26	11.61		
520.24	0.00	521.26	4.18	522.28	11.71		
520.26	0.00	521.28	4.37	522.30	11.80		
520.28	0.00	521.30	4.56	522.32	11.90		
520.30	0.00	521.32	4.75	522.34	11.99		
520.32	0.00	521.34	4.94	522.36	12.09		
520.34	0.00	521.36	5.14	522.38	12.18		
520.36	0.00	521.38	5.33	522.40	12.27		
520.38	0.00	521.40	5.53	522.42	12.37		
520.40	0.00	521.42	5.72	522.44	12.46		
520.42	0.00	521.44	5.92	522.46	12.55		
520.44	0.00	521.46	6.12	522.48	12.64		
520.46	0.00	521.48	6.31	522.50	12.73		
520.48	0.00	521.50	6.50	522.52	12.82		
520.50	0.00	521.52	6.70	522.54	12.90		
520.52	0.00	521.54	6.89	522.56	12.99		
520.54	0.01	521.56	7.08	522.58	13.08		
520.56	0.03	521.58	7.26	522.60	13.16		
520.58	0.05	521.60	7.45	522.62	13.25		
520.60	0.08	521.62	7.63	522.64	13.33		
520.62	0.12	521.64	7.80	522.66	13.42		
520.64	0.16	521.66	7.98	522.68	13.50		
520.66	0.20	521.68	8.14	522.70	13.59		
520.68	0.26	521.70	8.30	522.72	13.67		
520.70	0.31	521.72	8.45	522.74	13.75		
520.72	0.38	521.74	8.59	522.76	13.83		
520.74	0.45	521.76	8.73	522.78	13.92		
520.76	0.52	521.78	8.87	522.80	14.00		
520.78	0.61	521.80	8.98	522.82	14.08		
520.80	0.70	521.82	9.07	522.84	14.16		
520.82	0.80	521.84	9.13	522.86	14.24		
520.84	0.91	521.86	9.30	522.88	14.32		
520.86	1.02	521.88	9.46	522.90	14.40		
520.88	1.14	521.90	9.62	522.92	14.47		
520.90	1.26	521.92	9.78	522.94	14.55		
520.92	1.39	521.94	9.90	522.96	14.63		
520.94	1.52	521.96	10.02	522.98	14.71		
520.96	1.66	521.98	10.12	523.00	14.78		
520.98	1.80	522.00	10.22	523.02	14.86		
521.00	1.95	522.02	10.31	523.04	14.94		

274 Prospect Street - Post development
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Stage-Area-Storage for Pond 20P: Retention Basin

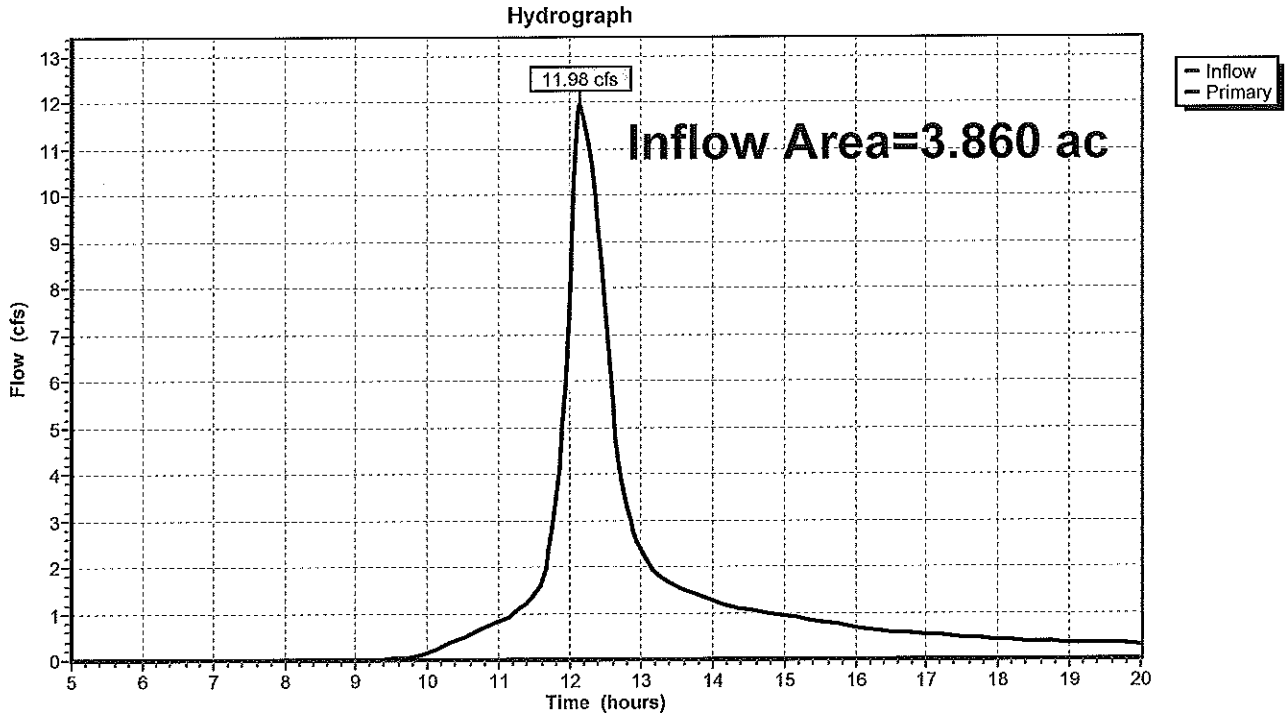
Elevation (feet)	Surface (sq-ft)	Storage (cubic-feet)
520.00	3,310	0
520.05	3,404	168
520.10	3,497	340
520.15	3,591	518
520.20	3,684	699
520.25	3,778	886
520.30	3,871	1,077
520.35	3,965	1,273
520.40	4,058	1,474
520.45	4,152	1,679
520.50	4,245	1,889
520.55	4,339	2,103
520.60	4,432	2,323
520.65	4,526	2,547
520.70	4,619	2,775
520.75	4,713	3,009
520.80	4,806	3,247
520.85	4,900	3,489
520.90	4,993	3,737
520.95	5,087	3,989
521.00	5,181	4,245
521.05	5,274	4,507
521.10	5,368	4,773
521.15	5,461	5,043
521.20	5,555	5,319
521.25	5,648	5,599
521.30	5,742	5,884
521.35	5,835	6,173
521.40	5,929	6,467
521.45	6,022	6,766
521.50	6,116	7,069
521.55	6,209	7,377
521.60	6,303	7,690
521.65	6,396	8,008
521.70	6,490	8,330
521.75	6,583	8,657
521.80	6,677	8,988
521.85	6,770	9,324
521.90	6,864	9,665
521.95	6,957	10,011
522.00	7,051	10,361
522.05	7,323	10,720
522.10	7,594	11,093
522.15	7,866	11,480
522.20	8,138	11,880
522.25	8,409	12,294
522.30	8,681	12,721
522.35	8,952	13,162
522.40	9,224	13,616
522.45	9,496	14,084
522.50	9,767	14,566
522.55	10,039	15,061
522.60	10,311	15,569
522.65	10,582	16,092
522.70	10,854	16,628
522.75	11,126	17,177
522.80	11,397	17,740
522.85	11,669	18,317
522.90	11,940	18,907
522.95	12,212	19,511
523.00	12,484	20,128
523.05	12,755	20,759
523.10	**13,027**	**21,404**

Link DP: Design Point

Inflow Area =	3.860 ac,	Inflow Depth > 3.93"		
Inflow =	11.98 cfs @	12.14 hrs, Volume=	1.264 af	
Primary =	11.98 cfs @	12.14 hrs, Volume=	1.264 af,	Atten= 0%, Lag= 0.0 min

Primary outflow = Inflow, Time Span= 5.00-20.00 hrs, dt= 0.05 hrs

Link DP: Design Point



Hydrograph for Link DP: Design Point

Time (hours)	Inflow (cfs)	Elevation (feet)	Primary (cfs)
5.00	0.00	**0.00**	0.00
5.25	0.00	0.00	0.00
5.50	0.00	0.00	0.00
5.75	0.00	0.00	0.00
6.00	0.00	0.00	0.00
6.25	0.00	0.00	0.00
6.50	0.00	0.00	0.00
6.75	0.00	0.00	0.00
7.00	0.00	0.00	0.00
7.25	0.00	0.00	0.00
7.50	0.00	0.00	0.00
7.75	0.00	0.00	0.00
8.00	0.00	0.00	0.00
8.25	0.00	0.00	0.00
8.50	0.00	0.00	0.00
8.75	0.01	0.00	0.01
9.00	0.01	0.00	0.01
9.25	0.02	0.00	0.02
9.50	0.02	0.00	0.02
9.75	0.04	0.00	0.04
10.00	0.15	0.00	0.15
10.25	0.31	0.00	0.31
10.50	0.49	0.00	0.49
10.75	0.66	0.00	0.66
11.00	0.83	0.00	0.83
11.25	1.05	0.00	1.05
11.50	1.41	0.00	1.41
11.75	2.86	0.00	2.86
12.00	**7.71**	0.00	**7.71**
12.25	**11.22**	0.00	**11.22**
12.50	7.54	0.00	7.54
12.75	3.67	0.00	3.67
13.00	2.37	0.00	2.37
13.25	1.81	0.00	1.81
13.50	1.57	0.00	1.57
13.75	1.41	0.00	1.41
14.00	1.27	0.00	1.27
14.25	1.15	0.00	1.15
14.50	1.07	0.00	1.07
14.75	1.00	0.00	1.00
15.00	0.94	0.00	0.94
15.25	0.88	0.00	0.88
15.50	0.81	0.00	0.81
15.75	0.75	0.00	0.75
16.00	0.69	0.00	0.69
16.25	0.63	0.00	0.63
16.50	0.59	0.00	0.59
16.75	0.56	0.00	0.56
17.00	0.53	0.00	0.53
17.25	0.50	0.00	0.50
17.50	0.48	0.00	0.48
17.75	0.45	0.00	0.45
18.00	0.42	0.00	0.42
18.25	0.40	0.00	0.40
18.50	0.38	0.00	0.38
18.75	0.37	0.00	0.37
19.00	0.36	0.00	0.36
19.25	0.35	0.00	0.35
19.50	0.34	0.00	0.34
19.75	0.33	0.00	0.33
20.00	0.32	0.00	0.32